

PERIODICAL



Vol. 89

MARCH, 1949

No. 3

AMERICAN BEE JOURNAL

# BABCOCK LEADS AGAIN!



THE FINEST GRADE OF SNOW WHITE OIL BASE PAINT  
THIS EQUIPMENT WILL LAST FOR YEARS WITH A MINIMUM  
OF UPKEEP

SAVES YOU LABOR, EXPENSE AND TIME  
TRULY A BEEKEEPER'S DREAM COME TRUE

**BABCOCK HONEY COMPANY**

P. O. BOX 126

COLUMBIA 5, S. C.



we're no  
HOGS

about it (profits) !

NO LONGER NECESSARY TO PAY PREMIUM PRICES FOR FIRST  
QUALITY EQUIPMENT

FACTORY TO YOU-MIDDLE MEN PROFIT ELIMINATED

One complete single story hive, reversible wood cover,	each	\$5.50
	Per five	22.40
One complete single story hive, standard telescoping cover or with new "All Weather" cover	each	\$6.40
	Per five	25.40
Hive bodies, complete with frames	Per five	\$12.50
Hive bodies, empty	Per five	6.95
Shallow extracting supers with wedge top bar frames	Per five	8.50
Shallow extracting supers, empty	Per five	4.00
Section honey supers, complete with everything except sections	Per five	8.25
Standard reversible bottom boards, 100% cypress	Per five	5.45
Wood reversible covers	Per five	4.50
Metal telescoping covers	Per five	7.45
All weather insulated and ventilated covers	Per five	9.80
Ten frame, all wire electrically welded queen excluders, wood rims	Per five	5.00
	Per ten	9.50
4 1/4 x 4 1/4 x 1 7/8 Beeway sections, split 3 sides for inserting foundation easily. 28 of these sections are needed for each section honey super	Per 100	2.97
	Per 500	13.13
	Per 1000	26.15
DADANT'S THIN SURPLUS FOUNDATION for above sections, 25 sheets per lb. 7 sheets needed for each super	Price per lb.	\$1.25
	all thin surplus.	
DADANT'S THIN SURPLUS for shallow divided bottom bar frames as supplied in our supers. 22 sheets per lb.	Per 5 lbs.	5.95
	Per 25 lbs.	29.25
DADANT'S CRIMP WIRED brood foundation, 8 x 16 3/4 fits divided bot- tom bar frames in our hives. 7 sheets per lb.	10 sheets	1.75
	50 sheets	8.10
	25 lbs.	27.75
Folding wire veil	each	\$1.40
10" Hive tool	each	.80
Woodman Smoke Engine Smoker	each	1.80
Big Smoke Smoker with shield	each	2.45

For quick service order direct from this ad. Our complete free catalogue offers a complete list of everything for the beekeeper. All equipment supplied with divided bottom bar frames and in ten frame size unless otherwise specified.

BABCOCK HONEY COMPANY

P. O. BOX 126

COLUMBIA 5, S. C.



## You Are the Judge

### Your Decision is Final

Will you buy Package Bees this year, or allow your equipment to stand idle.

If you buy bees, will it be on the basis of price or quality, service, and reputation of the producer?

We believe we can give you more than your money's worth in satisfactory bees, queens and service.

Our queens are bred for production as well as other qualities necessary for honey production.

2-lb. package bee with young queen \$4.00

3-lb. package bee with young queen 5.00

1 frame brood where state permits, \$1.00 extra

Queenless bees deduct per package \$1.25

**SHIPPING STARTS MARCH 15TH  
WEATHER PERMITTING**

We still have some good open dates.

"THEY PRODUCE"

**Rossmann & Long**

P. O. BOX 133

MOULTRIE, GA.

**1896-1949**

**IN 1949**

**More beekeepers than ever before  
will be turning their attention to  
producing Comb Honey.**

The price is right—the demand is good.

We can supply your needs in Comb Honey Sections—Section Supers—and all the equipment necessary for production of Comb Honey.

We are manufacturers and sell direct to the beekeeper.

Write for our 1949 catalog listing everything for the apiary at a price that is right.

**MARSHFIELD MFG. CO., Inc.**  
**MARSHFIELD, WISCONSIN**

(The heart of Wisconsin's Dairyland)

## NEED BEE SUPPLIES?

We have Everything the Beekeeper needs.

Sections

Supers with fittings

Hives and Frames

Foundation

Wire  
and

all other supplies

**WRITE FOR PRICES**

**AUGUST LOTZ COMPANY**

MANUFACTURERS AND JOBBERS

Boyd,

Wisconsin

## 3-Band Italian Package B E E S

Full Weight. Prompt Shipment. Young Bees

State health certificate with each shipment. Live arrival guaranteed. Replacement or refund made promptly upon receipt of bad order from your express agent.

### 1949 PRICES

#### WITH YOUNG LAYING QUEENS

Lots of	2-lb.	3-lb.	4-lb.	5-lb.
1-29	\$3.50	\$4.40	\$5.50	\$6.50
30 or more	3.20	4.00	5.00	5.90

Tested Queens \$2.00 each.

For queenless bees deduct \$1.00 each from above prices.

**JACKSON APIARIES**  
**Funston, Georgia, U.S.A.**

**BLUE RIBBON**  
**Package Bees and**  
**Italian Queens**

Booked full to April 20th.  
 Write for prices.

**FOSTER APIARIES**  
 COLUSA, CALIFORNIA  
 Successor to Thos. C. Burleson

**McCORD FRAME - GRIP**



Saves time and energy for beekeepers large or small. A light weight handy instrument used for loosening and removing the frames from the hive with one hand.

Price \$3.00 plus 18c postage fee. Satisfaction dealer discounts.

**McCORD MFG. CO.**

RT. 2, BOX 868, SAN JOSE, CALIFORNIA

**Healthy Italian Queen Bees**  
**GUARANTEED LIVE DELIVERY**  
 Certificate with each shipment.

PRICE \$1.15

**HENRY & SONS**  
 BOURG, LOUISIANA

Ship Your  
**HONEY & BEESWAX**  
 to us. Top prices paid, prompt remittance. Also welcome your old comb shipments to be rendered into wax at very nominal charge.

**THE FRED. W. MUTH CO.**  
 229 Walnut Street  
 CINCINNATI 2, OHIO

**Package Bees and Italian Queens**

We are booking orders for 1949. Only 20% with order, balance 10 days before shipping. We guarantee live delivery of each package shipped.

2-lb. pkg with queen	.....	\$3.50
3-lb. pkg. with queen	.....	4.50
4-lb. pkg. with queen	.....	5.50

**LOUIS GASPARD BEE FARM**  
 Hessmer, Louisiana

**"WORMS UNLIMITED"**  
 raising earthworms can be an interesting hobby and profitable too.

Let us tell you how raising earthworms will fit into your beekeeping work for greater profits, improving your soil, increasing crop yield. Results are phenomenal! Write for free information:

**POLSON ENTERPRISES**  
 1108 Leland Ave., Chicago 40, Illinois

**Renew Your Subscription**



## **Bees & Queens**

We are straining out the drones and shipping only young bees, Plenty of open dates. Shipments start April 1st. 3-Banded Italians only.

2 POUND SWARMS YOUNG BEES WITH YOUNG 1949 QUEENS, EACH ..... \$4.00  
 3 POUND SWARMS YOUNG BEES WITH YOUNG 1949 QUEENS, EACH ..... 5.00  
 YOUNG, 1949 3-BANDED ITALIAN QUEENS, PREPAID AIR MAIL, EACH ..... 1.00

**WALTER T. KELLEY CO. : Box 210 : Paducah, Ky.**

### **QUEENS—CAUCASIANS ONLY**

We do not waste time on races of bees that have proven to be inferior in our honey producing apiaries in California, Nevada, and Alberta.

Neither do we waste time on what we consider to be inferior methods of queen production. We use standard frame nuclei only: no baby or other midget nuclei designed for mass production.

We produce for **QUALITY ONLY**, and you get the same quality that is consistently producing larger crops of honey throughout the West.

**BUY YOUR QUEENS FROM A HONEY PRODUCER  
 WHO KNOWS WHAT IT TAKES IN QUALITY TO PRODUCE  
 A CROP OF HONEY.**

Prices are \$1.25 each with discount of 5% allowed on orders of 50 queens and 10% allowed on orders of 100 or more.

### **THOS. S. DAVIS**

Route 7, Box 3914  
 Sacramento, California  
 Breeder of BETTER CAUCASIANS for more than twenty years.

## **Diamond Quality Bee Supplies**

**BE PREPARED** for the big honey crop that preliminary reports indicate will be harvested across the nation. We offer a complete line of highest quality equipment:—hive bodies and frames of choice western pine, tops and bottoms of long lasting Redwood, basswood sections, package bee shipping cages, Diamond foundation, all sundries, bees, queens and the stainless steel DIAMOND SPINNER, the cappings drier deluxe.

Write for 1949 catalogue, or for special prices on car lot shipments.

Since 1882

### **THE DIAMOND MATCH COMPANY**

1300 PRODUCE STREET  
 LOS ANGELES 21, CALIFORNIA or  
 APIARY DEPARTMENT  
 CHICO, CALIFORNIA

**A-B-J Ads Are Result Getters**

# The American Bee Journal

Volume 89, No. 3

HAMILTON, ILLINOIS

March, 1949

Managing Editor—G. H. Cale

Editors—M. G. Dadant, Frank C. Pellett, Roy A. Grout

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## Italian Queens

VIA AIR MAIL  
WORLD ROUND

\$1.25 each U. S. A. and Canada

South America \$1.40 each

Europe \$1.70 each

You too can get quality queens in 1949  
by ordering here. Ask your neighbor.

(MISS) LENORA ANDERSON  
Samson, Alabama

## HUMMER'S

### Package Bees—Italian Queens

Live arrival—Prompt shipment—Overweight packages headed by young queens from proven high producing stock. Satisfaction guaranteed.

	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1 to 50		\$1.20	\$3.50	\$4.50	\$5.50
Over 50	1.00	3.25	4.25	5.25	6.25

Queens airmail postpaid—  
No charge for clipping.

### GEO. A. HUMMER & SONS

Established 1892 Prairie Point, Mississippi  
Wire or phone, Macon, Mississippi



## ITALIAN QUEENS & PACKAGE BEES Bred for Honey Production

Beekeeping is no side line with us. We operate 12 months a year devoting all our time to beekeeping. Being honey producers as well as package shippers, we have a chance to test our queens in honey production before they can qualify as breeders in the queen yards. We offer you a Resistant Strain of Italian bees, line bred in our Apiaries for honey production.

**YOUR SATISFACTION IS OUR SUCCESS**

Two pound package with queen \$4.00 each

Three pound package with queen 5.00 each

**Queens, daughters of tested breeders 1.20 each**

**SPECIAL—1,000 2 or 3 frame nuclei. Write for further information.**

Live delivery guaranteed.

### SOUTHLAND APIARIES, Ball, La., U.S.A.

Western Union, Alexandria, La. Tel. Alexandria Exchange 2-3293



### BETTER BEES

An entirely new type Queenbee for 1949—Six generations of controlled instrumental mating and careful research work has gone into the production of these Northern bred pure all Italian hybrids. Progeny tested for uniformity of better honey production, easy to handle, resistant to the foulbroods and other valuable qualities under standard commercial Apiary operations.

Shipments start April 1st. We have just a few packages headed by these queens left. PRICES:

QUEENS—1-24, \$1.65      25-99, \$1.55      100 up, \$1.40

### WICHT APIARIES, 406 Miller Street, Hattiesburg, Miss.

## DO YOU KNOW Our Universal Honey Extractor HAND OR MOTIVE POWER

Is true to name inasmuch as it has the greatest capacity for all size frames of any 24 inch diameter extractor on the market? It will take FOUR deep frames up to 12 inch or EIGHT shallows up to 6 1/4 inch at a loading.

When the Townsends ordered cans for 186,000 pounds of honey in 1940, we asked if they continued to use the Universals bought in 1929. Their reply was, "For your information, three of these extractors have extracted at least 750,000 pounds of honey and are working today August 31st, 1940. Mostly hive warm honey at our yards, which extracts easily."

**A. G. WOODMAN CO.  
GRAND RAPIDS, MICHIGAN, U.S.A.**

### DADANT'S PLAIN FOUNDATION

Hand sorted packages of plain sheets of foundation, to be wired into your frames by hand. Each sheet is inspected before placing it between tissue. You get the perfect ones only; clear, sweet-smelling beeswax; nice, straight rows of cells. Precision milled. Seventy-five years of know-how go into this product.

**DADANT & SONS, Inc.**

Hamilton, Illinois

### SPRING OF 1949

#### ITALIAN BEES AND QUEENS

2-lbs. pkg. bees and queen \$3.25;  
3-lbs. \$4.25; 4-lbs. \$5.25. 20% down,  
balance 10 days before shipping date.  
Guaranteed safe delivery.

**THE STAR BEE FARM**  
Adolph Guillory, Prop., Hessmer, La.

### EARLY QUEENS

I can supply your needs. Don't miss  
a crop on account of a poor queen.  
Shipments start March 25. 1-24, \$1.40.  
25-99, \$1.30. 100-up, \$1.20.

**EUGENE D. CUTTS**  
Member ABBA, Citronelle, Alabama

### BEES AND QUEENS

ITALIANS or CAUCASIANS  
2-lb. package with queen \$3.75.  
Health certificate and live delivery  
guaranteed. Prompt shipments.

**LITTLE RIVER APIARIES**  
BOX 83      GAUSE, TEXAS

### WANTED

Thousands of Rabbits  
and other Small Stock.  
Poultry & Birds. Let

#### "STANDARD RABBIT & PET JOURNAL"

Bring you the Monthly News of Rabbit,  
Cavy, Small Stock, Poultry, Birds  
and Other Pets.

**STANDARD RABBIT AND PET JOURNAL**  
BOX 251      MILTON, PA.

### 3-Banded Italian Bees and Queens

2-lbs. with queen \$3.50; 3-lbs. with queen  
\$4.50; 4-lb. with queen \$5.50.

Only 20% down, to book your order,  
balance 15 days before shipping date.  
Health certificate and live delivery guar-  
anteed with each shipment.

**CLOVER BEE FARMS**  
HESSMER, LOUISIANA

### Williams Italian Queens \$1.50 each

All queens clipped and marked. Shipping  
date starts April 15, 1949. 25% deposit holds  
orders. Balance 10 days prior to shipping  
date.

**DR. WILLIAMS APIARIES**  
303 W. DEFEY      BAYTOWN, TEXAS

### SPRING OF 1949

#### ITALIAN BEES AND QUEENS

2-lbs. pkg. bees and queen \$3.50;  
3-lbs. \$4.25; 4-lb. \$5.00; 20% down.  
balance 10 days before shipping date.  
Guaranteed safe delivery.

**BUNKIE BEE FARM**  
C. L. Guillot,  
R.F.D. No. 2, Box 85, Bunkie, La.

### N. GAUTHIER BEE CO.

#### Italian Queens and Package Bees

We are now booking orders for 1949 delivery,  
only 20% with order, balance 10 days before  
shipping date. Guarantee live arrival and health  
certificate with each shipment. Our shipping  
date opens April 10th. Prices follow—2-lb. pkgs.  
and queen, \$4; 3-lb. pkgs. and queens, \$5.

**N. Gauthier Bee Co., Hessmer, La.**

**CHOOSE LABELS WISELY—  
A-B-J LABELS GET RESULTS**

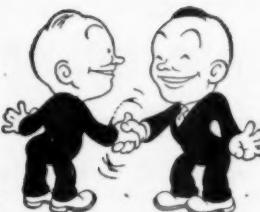
## JENSEN'S "Magnolia State" ITALIANS PACKAGE BEES & QUEENS

Bees and queens of this strain have made an enviable record for use by satisfied customers among the better class of beekeepers in the United States and Canada, and several foreign countries as well.

We try always to stay abreast of new developments in breeding technique that will in any way improve our stock. If you have never tried any of our package bees or queens we urge you to give them a trial. We assure you, you will be pleased with the results they produce.

PRICES:	Queens	2-lb. pkgs. with queen	3-lb. pkgs. with queen
1-24	\$1.40	\$4.50	\$5.60
25-99	1.30	4.25	5.30
100-up	1.20	4.00	5.00

## JENSEN'S APIARIES



## Also—a New Type of Queen

### A THREE-WAY HYBRID



Now it can be told—"A Three-way Hybrid" Queen will be available this spring. Amazing results have already been achieved with them, and this only the beginning. Do not confuse the word "Hybrid" with the common cross between black and yellow bees. These Hybrids are the result of uniting three lines of Italians to form one outstanding line. PROGENY TESTED FOR HONEY PRODUCTION, RESISTANCE, GENTLENESS, AND OTHER DESIRABLE QUALITIES.

PRICES: 1-24, \$1.65; 25-99, \$1.55, and 100-up \$1.45 each. A limited number of packages of D. R. Bees will be available with these NEW QUEENS.

"The Business QUALITY Bull"

## Macon, Mississippi

## Prices Reduced to Meet Honey Prices

The year of 1949 is here. We all want to make the best success possible for this season and years to come. Mr. Beekeeper, large or small, let us help make your 1949 season one of the most successful ones in history with our highest prime quality three-banded improved strain of package bees and queens.

Time and bees wait for no man, it is time to place your orders for your 1949 requirements. In doing this we know you must have your bees and queens on time, you must have "HIGHEST PRIME QUALITY" for your money. This we have to offer you, backed by over 30 years careful selecting, breeding and shipping to all points in U. S. A. and Canada with 100% perfect satisfaction guaranteed to every one, in every respect.

You get each season's improvements when buying from us, what we mean, each season we select the best for honey producing qualities, disease resistant qualities from many hundreds of best by test colonies. Our breeding and mating stock is carefully picked and tested out for the coming season for your benefit, sparing not labor nor money in producing the best with patience and long experience which we feel are surpassed by none. Mating is very important in breeding the best strain of bees, we carefully select our drone colonies for mating in quality same as breeders.

Book your orders now to reserve your specified shipping date. No customer will be disappointed when booking their orders with us. Your bees are guaranteed on time, our prices for 1949 are as follows—one-fourth down payment with order, balance due 10-days before your specified shipping date.

	Queens	2-Lb. Pkg. with Queen	3-Lb. Pkg. with Queen
1-24	\$1.25	\$4.00	\$5.00
25-99	1.15	3.75	4.75
100 up	1.00	3.50	4.50

We guarantee full weight packages, young vigorous bees with their working life ahead, no supersedure in our queens, health certificate with each shipment, 100% perfect satisfaction guaranteed in every respect. For "HIGHEST PRIME QUALITY," PROMPT SHIPMENT we feel free to say we are surpassed by none. Book your orders now for your requirements if possible. We are working each day now to fulfill your requirements for 1949 where orders are placed in advance enables us to know what shipments must go out each day in shipping season. THANK YOU.

## H. A. FARMER APIARIES : Cottonwood, Ala.

TELEGRAPH AND EXPRESS OFFICE DOTHAN, ALA.

## G. B. Lewis Wooden Goods !

DADANT'S WORLD FAMOUS CRIMP WIRED FOUNDATION—Their 85 years' experience is your safeguard. Catalogue on request.

## Dotson's Apiaries

3050 W. Roxboro Rd. N. E., Atlanta, Georgia

FOR EVERY LIGHT HAULING JOB

**Cushman**  
MOTOR SCOOTER

Quick, handy, economical! Cushman saves expense, gets up to 60 miles per gallon. See Your Dealer or Write Dept. ABJ 29

**CUSHMAN MOTOR WORKS, INC., LINCOLN HIGH, U.S.A.**

**SAVES YOU MONEY**

## 3-BANDED ITALIANS

We are booking orders for spring 1949. Only 20% with order, balance ten (10) days before shipping date. Health certificate with each shipment and live arrival guaranteed. 2-lb. pkgs. with queen \$3.50; 3-lb. \$4.50; 4-lb. \$5.50.

## RED DIAMOND APIARIES MANSURA, LOUISIANA

## RED STICK APIARIES & CO.

Member Louisiana Retailers  
Association

Twenty-eight Years Commercial  
Queen Breeder

### Disease Resistance Stock ITALIAN BEES & QUEENS

2-lbs. with spring bred  
laying queen \$4.00  
3-lbs. with spring bred  
laying queen 5.00  
Extra queens \$1.25 any number

WHY PAY MORE FOR  
THE BEST

Main Office 113 Lee Ave.  
Telegraph Western Union  
DONALDSONVILLE, LA.



WEST COAST  
BEEKEEPERS  
Buy Quality  
Lewis-Dadant  
Products  
from  
F. O. IRICK  
609 S. H. St.  
Tulare, California

### QUALITY THREE-BANDED ITALIAN PACKAGE BEES AND QUEENS FOR 1949

New Simplicity Package makes  
possible rapid, easy, and  
safe introduction.

Write for circular and prices.

COTTAGE HILL APIARIES  
RT. 2, BOX 64 MOBILE, ALA.

### -HONEY WANTED-

CARLOADS AND LESS THAN CARLOADS  
Send samples and quote best cash price de-  
livered to us. All grades.

HONEY SALES COMPANY  
1806-08 No. Washington Ave.,  
Minneapolis 11, Minnesota

PACKAGE BEES AND QUEENS  
BRIGHT THREE-BANDED ITALIANS  
Prices Pkg. Bees with Queens  
Queens 2-Lb. 3-Lb.  
1 to 24. \$1.40 \$4.50 \$5.60  
25 to 99 1.30 4.25 5.30  
100 up 1.20 4.00 5.00  
We guarantee safe arrival. For larger  
packages write for circular.

TAYLOR APIARIES  
Box 249 Luverne, Alabama

WHITE PINE BEE FARMS  
Jason B. Hollopeter, Rockton, Pa.  
NORTHERN BREEDERS OF  
Hardy, Honey Gathering Stock  
Now booking orders for season  
which opens May 20, 1949

FOR BETTER BEE KEEPING USE  
DADANT'S FOUNDATION

# H

Honey is produced in hives

# H

Honey is sold in H-A jars



HAZEL-ATLAS GLASS  
COMPANY Wheeling, West Virginia



### LADY-LIKE CAUCASIANS CAUCASIAN APIARIES

Castleberry, Alabama

Breeders of the best in

### CAUCASIAN BEES AND QUEENS

QUEENS	\$1.40
2-POUND PACKAGES, WITH QUEEN	4.50
3-POUND PACKAGES, WITH QUEEN	5.60

A trial will convince you—A-B-J ads produce results

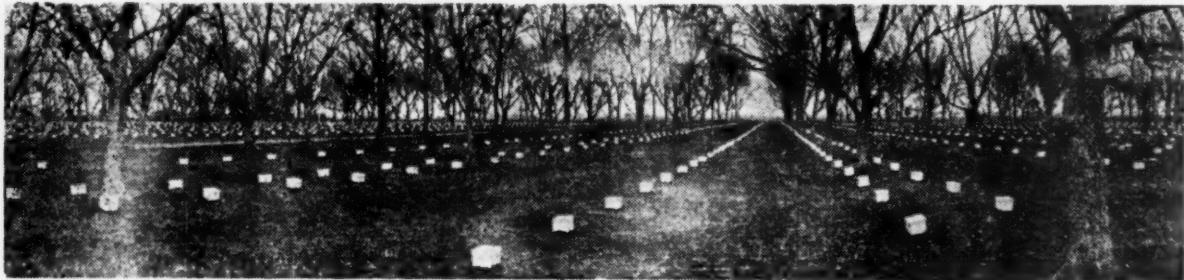


Photo shows a part of one of our queen yards with 10,000 nuclei

## ITALIAN BEES YOUNG QUEENS

RESERVE YOUR 1949

DATE NOW

No Deposit Required  
For Early Booking.  
Large Queen Orders  
Solicited.



	1-24	25-49	50-99	100-up
2-lb. package with queens	\$4.50	\$4.25	\$4.00	\$3.75
3-lb. package with queens	5.25	5.00	4.75	4.50
4-lb. package with queens	6.00	5.75	5.50	5.25
5-lb. package with queens	6.75	6.50	6.25	6.00

For price of queenless packages, deduct the price of the queens.  
Write for our full folder on package bees and queens.

Louisiana's Largest Package Bee  
and Queen Shippers

Bunkie, La.

OVERBEY APIARIES,

OUR PURE CAUCASIANS ARE ABSOLUTELY TOPS IN QUALITY,  
HONEY PRODUCTION, GENTLENESS

As we realize that our customers keep us in business we strive to serve them with only the best.

LOTS 1-10



2-lb. package with queen	\$4.40
3-lb. package with queen	5.50
QUEENS (each)	1.35

Health certificate furnished with each shipment and  
live delivery guaranteed.

PINE BLUFF BEE FARMS

(Caucasian Branch—  
Jesse E. Gooch & Sons)

Route 3, Pine Bluff, Arkansas

## Puett's Packages and Queens

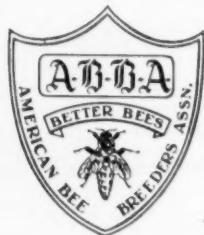
PRICES—

	1 to 9	10 to 49	50 to 99	100 & above
2-lb. package with queen	\$4.60	\$4.35	\$4.15	\$4.00
3-lb. package with queen	5.60	5.35	5.15	5.00
4-lb. package with queen	6.60	6.35	6.15	6.00

Extra queens—\$1.25 untested, \$2.00 tested. For queenless packages deduct \$1.25.

Loose-Queen packages (late shipment only) add \$1.00.

\$1.00 deposit holds shipping date, balance payable before shipment. Refunded if cancelled 10 days before  
shipping date.



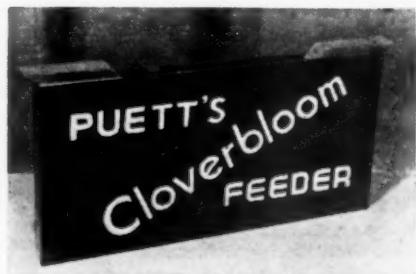
Puett now manufacturing division  
board feeders. Made of Masonite,  
glued and nailed to gum frame.

PRICE—75 Cents

The Puett Co.

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Hahira, Ga.



## An Ad in the A-B-J Brings Results



The above photo shows an average swarm box colony. It is obvious that this hive of bees contains many pounds of prime bees and brood. Early afternoons these combs in the bottom brood nest contain five or six pounds of bees, more in the top super and many in the field. The bees from four or five of these combs will be shaken into swarm box in the background every three days and returned after a fraction of twenty-four hours to their colony. And they, without fail, properly start cells. It is part of a system that raises queens that keep our customers and ourselves in business. Two swarm boxes could be shook daily from such a hive, but before many days the quality of queens would be such that our customers and ourselves would be on the road out of business, even though the customer could receive cheaper queens and we several times the profit.

## What is a Bargain?

The best bargain is the one which gives the most value per dollar spent. It is truly as important to know how to spend money as it is to be able to earn it. The old proverb "Penny Wise, and Pound Foolish" is a thought well worth bearing in mind.

**BEES** are the most important purchase a beekeeper makes, for in them lies his chance for Success or Failure.

This year, be sure you make a good investment when you purchase your package bees and queens. A good investment will pay back your original outlay and make you a profit. A poor investment may mean not only the loss of your profit, but of the purchase price as well.

### One of the World's Leading Strains of Light Colored Italians.

Lot	Queen	2-lb.	3-lb.	4-lb.	5-lb.
1- 5	\$1.55	\$4.75	\$6.00	\$7.25	\$8.50
5- 15	1.50	4.65	5.90	7.15	8.40
15- 25	1.40	4.50	5.75	7.00	8.25
25-100	1.35	4.40	5.65	6.90	8.15
100-up	1.20	4.25	5.50	6.75	8.00

Select Tested Queen Bees, before June 1st, \$10.00  
After June 1st, \$5.00, no discount.

## The Daniels Apiaries : : Picayune, Miss.



# • As We

## Spray Losses and Cooperation

A SIGNIFICANT STATEMENT WAS made by an official of the University of Arkansas, at the Arkansas meeting at Little Rock in November. It was to the effect that their recommendations to the cotton farmers would be to guard against injury to bees through injudicious spraying. However, it must be borne in mind that tests have shown that to control boll weevil none of the new chemicals as yet had approached the efficiency of the arsenicals and that the college would, under necessity, recommend arsenical treatments until something better was found.

Such cases can no doubt be multiplied throughout the cotton-growing sections. Perhaps it may similarly be the case with some other crops. While the farmer may be to blame in many instances for bee loss through injudicious spraying, yet he must look to his own interests, of course.

Naturally this calls for more cooperation of the beekeeper with the farmers owning land surrounding his apiaries. Certainly few farmers will fail to heed the admonition to notify the beekeeper ahead of any lethal spraying, and without a doubt the education that agriculturists are getting through the various state and government authorities, especially the conservation service, as to the necessity of bees in a balanced agriculture, is beginning to impress the minds of the alert farmers as to the responsibility they should share in safeguarding the bees as much as possible.

Already there seems to be a lessening of complaints, and full cooperation between these two classes should reduce losses to a minimum.

## "Wind Chill" and Wintering of Bees

CHARLES M. SMITH, OF BILLINGS, Montana, comments in a recent letter on the hard winter and the fact that Montana bee-

keepers are paying more attention to wind protection for winter than to the heavy packing of former years.

Included in his letter is a clipping of an article in the February 12 issue of Collier's Magazine entitled, "Freezing For Freedom," by John Kord Lagemann, telling the story of Canadian and U. S. armed forces at Churchill in the Arctic and their tests in gauging the power of the elements. Wind and chill together are what pull the heat out of man or machine. Thus the "wind chill" factor, or cooling rates under different combinations of wind and temperature. For instance, there is exactly the same wind chill with a 20-mile wind at 20 degrees above zero as there is with a 1-mile wind at forty below. In terms of effect on your car, says Lagemann, 83 below in a windless valley of the Yukon is no worse than the combined effect of thirty below and a 30-mile wind as they have at Churchill.

So beekeeping authorities have not been far off in recommending wind protection for the apiary. In practical application we, as beekeepers, might well make some experiments on our apiary locations and determine whether the wind chill there should call for a move, for an artificial windbreak, or for winter packing perhaps, taking into consideration relative costs from colony losses as a part of the picture.

As Dr. Miller so aptly said: "It depends on the locality." Wind chill certainly is so affected that a difference of a few hundred yards in a location may mean much in heat loss to home, stock, or apiary.

## What Makes A Good Bee?

AS IS TO BE EXPECTED, MOST BEE-keepers place production at the head of the list of qualities they require in breeding stock. An interesting question is at once raised as to what physical characters determine the ability to produce.

Perhaps the carrying capacity of the individual bee which enables it to bring home a

# See It •



larger load of nectar may be of first importance. Again tongue length may at times be the thing which decides how large a crop can be gathered. Bees with long tongues often find it possible to get nectar which is not available to those with shorter equipment.

When we ask for high production, how is the breeder to know what characters to look for to insure it? If we can combine all these three qualities in the same bee—long tongue, large carrying capacity, and long flying range—are we sure we are not overlooking others of equal or greater importance?

The fact is that not too much is yet known about the basic qualities which the breeder must consider in his effort to produce a better honeybee.

## Perennial Sweet Clover

THE GREATEST AID TO SOLUTION OF the present serious bee pasture problem would be the finding of a true perennial sweet clover. We have been told from several sources that there is a perennial variety in Asia but thus far it has not been brought to America. Sweet clover is by far the most valuable source of honey thus far found by American beekeepers but its short life limits its value. Always after two years it must be replanted and for this reason the acreage varies greatly from year to year. A perennial form would go far toward stabilizing our bee pasture.

For years we have searched for the perennial variety until we have come to share the doubts of many agronomists that such a form exists anywhere. At time of the beginning of World War II, our field editor was in correspondence with a plant collector in Manchuria who insisted that he could secure the perennial sweet clover but hostilities terminated the contact.

On two occasions seed has come to our test garden with the assurance that the variety was perennial, but in each case the plants bloomed in the second year and died at close of the season. The first came from Australia

where it was reported as having been secured from the Asiatic source.

Since Prof. Hughes found the annual variety later named "Hubam" in his honor, the hope has persisted that a perennial sport might appear in the same manner. It is highly important that any sweet clover plant which lives for more than two years be carefully preserved until its value has been determined. The one who finds it will render a great service to the bee-keeping industry.

## Waste Not—Want Not

WE AMERICANS ARE A VERY WASTEFUL people. Because we live in the world's richest area we are unconscious of the fact that our posterity will one day suffer for lack of what today we throw away. Even now the housing shortage is bringing forcefully to public attention the deplorable waste of forest products for the past half century which has brought the present day lumber shortage.

The big piles of burning leaves in every community in autumn demonstrates the complete lack of understanding of their value. A substantial amount of plant food is taken from the soil each year to produce the leaves. Since this is continuously destroyed without replacement the soil becomes poorer year by year. In spring in the Midwest cornfields the burning stalks from the previous year's harvest consume about one-fourth of the plant food required to produce a crop.

A grass fire, permitted to run across a dry field, will destroy enough humus to produce a crop of wheat. The sewage from our cities, if turned into fertilizer, would supply the deficiency in soil fertility for millions of acres.

The greatest waste of all is perhaps the loss of soil which is carried down the streams with every rain. Soil once lost cannot be recovered and famine has overtaken the people of many lands who failed to appreciate the importance of its conservation.

## BRIGHT YELLOW ITALIAN BEES AND QUEENS

All our bees are bright yellow in color, very gentle to work with, and extremely good honey gatherers. Our queens are bred from carefully selected stock that has proven its qualities, and queen rearing begins the first week of March, a fact which guarantees that all packages of bees are headed by a young queen. We also guarantee live delivery, full weight packages of young bees, a health certificate with each order, shipping on date specified, and satisfaction.

Our shipping date starts first week in April and \$1.00 per package books your order, balance 10 days prior to shipping date.

### PACKAGES WITH QUEEN

2-lbs.	3-lbs.	4-lbs.	Queens
\$3.50 each	\$4.50 each	\$5.50 each	\$1.00 each

ALVIN J. DUCOTE

Hamburg, La.

## NORTHERN CALIFORNIA ITALIAN PACKAGE BEES AND QUEENS

	1-24	25 or more
2-pound packages with queen	\$4.25	\$4.00
3-pound packages with queen	5.35	5.10
Extra queens after May 10th	1.25	1.00
Extra queens before May 10th	1.50	1.25

10% books the order. Balance 10 days before shipping date.

HOMER E. PARK, Palo Cedro, Shasta County, Calif.

### POLLEN SUBSTITUTE

	5-Lbs.	10-Lbs.	25-Lbs.	50-Lbs.	100-Lbs.
Brewers yeast Soy flour (expeller) mixed	\$ .75	\$1.50	\$3.00	\$5.50	\$10.00
Brewers Yeast	1.50	2.75	5.50	8.50	16.00
Soy flour (expeller)		1.40	2.25	4.00	7.25
Skim milk, suitable for humans	1.50	3.00	6.50	11.00	21.00
Send parcel post charges if you want shipment by mail. Please allow two pounds extra for packing. All orders sent collect.					

M. Y. S.

Bainbridge, New York

## Three-Banded Italian Queens of Highest Quality

PACKAGE BEES AND 5-FRAME NUCLEI READY MARCH 1ST.  
PRICE LIST ON REQUEST.

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### ITALIAN BEES AND QUEENS

We have a large quantity of good Quality Queens for March delivery. Write us for large queen orders.

	1-9	10 up
2-lb. packages	\$3.60	\$3.50
3-lb. packages	4.60	4.50
Queens	1.10	1.00

We guarantee QUALITY, full weight, prompt and live delivery, and health certificate with each order.

Let us make you one of our satisfied customers.

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## You Can Get Your Bees On Time If You Order Early

Package season starts April 1st—  
Packages with Italian or Caucasian  
queens.

2-lb. package with queens 1-48 48-100  
3-lb. package with queens \$4.00 \$3.75  
5.00 4.75

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## BENNETT BEE FARMS



Our success as package shipper depends on giving the buyer  
**QUALITY, SERVICE, and SATISFACTION.**

This we offer at the following prices  
2-lb. 3-lb.  
Quantity Queens Pkg. Pkg.  
1-99 \$1.30 54.25 55.30  
100-up 1.20 4.00 5.00  
Order early for choice dates. Each  
shipment has health certificate.

BENNETT BEE FARMS  
HATTIESBURG, MISSISSIPPI

## J. F. McVAY

JACKSON, ALABAMA

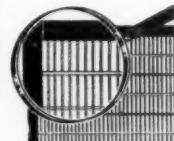


**GOOD PACKAGES**  
•  
**GOOD QUEENS**  
•  
**RELIABILITY**

1-24	25-99	100-up
2-lb. with queen \$4.50	\$4.25	\$4.00
3-lb. with queen 5.60	5.30	5.00
Queen only 1.40	1.30	1.20

## THE ONLY WORTHWHILE QUEEN EXCLUDER

on the market



Chrysler's All Steel Electric Welded Queen Excluder allows maximum bee passage, better ventilation, more honey production. No wood, no sharp edges to injure bees, no burr combs. New rust proofing process. So durably made and accurately spaced that it is permanently Queen excluding and will last a lifetime. Sales increasing steadily each year. For earliest delivery place your order at once. Send for circular E-8.

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### FOR MAY AND JUNE

#### Caucasians and Italians

Mated to Italian Drones

PRICES  
\$1.10 each for 1 to 50  
1.00 each for 50 to 100  
.90 each for 100-up  
Also a few packages left for May  
delivery at \$4.00 for 2-lb.; \$5.00 for  
3-lb. packages.

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6442 E. Tulare, Fresno, Calif.

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Our queens are quality bred. Bred from Motts strain of three band Italians. Prices \$1.00 each, any number. Health certificate with each shipment. Book your order now.

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**QUALITY CAUCASIAN  
Package Bees & Queens  
PROMPT SERVICE**  
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## ITALIAN BEES AND QUEENS

2-lb. package with queen	\$3.50
3-lb. package with queen	4.50
Queens	1.00
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NORTHERN CALIFORNIA  
TOP QUALITY  
**ITALIAN PACKAGE  
BEE AND QUEENS**

2-lb. pkg. with queen, \$4.00; 3-lb. pkg. with queen \$5.10; Add 25¢ per pkg. for orders less than 25. Queens before May 10th, \$1.25; Queens after May 10th \$1.00; Tested fall queens to be shipped by March 25, \$1.10. \$1.00 per pkg. books the order. Balance ten days prior to shipping date.

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2436 North St., Redding California  
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**SWARMING AND ITS CONTROL** by Snelgrove. Authoritative English work by one who has made a thorough study of his subject. Cloth. 100 pages. \$2.00

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**American Bee Journal**  
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## QUEENS-Packages **3-Banded Italians**

FREE OF DISEASE—10% BOOKS ORDER

PRICES AS FOLLOWS ON 1 TO 25 PACKAGES

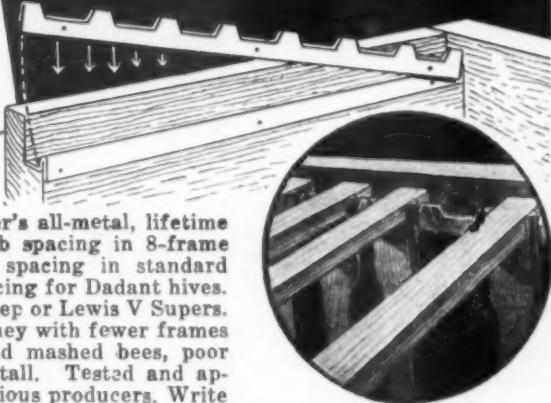
2-lb. and young laying queen (each)	\$3.75
3-lb. and young laying queen (each)	4.75
4-lb. and young laying queen (each)	5.75
Queens, (Postpaid)	1.00
Queenless packages, subtract price of queen.	
Efficient—Rapid—Honest Service.	



**EELLS HONEY & BEE CO., Houma, La., U.S.A.**  
"IN THE SUNNY SOUTH"

You save ALL WAYS with the  
**STOLLER Slip-on FRAME SPACER**

Stoller Spacers fit  
over, or replace, any  
standard frame rest or  
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and sizes.



Step up profits! Stoller's all-metal, lifetime spacer permits 7-comb spacing in 8-frame hives; 8 or 9 comb spacing in standard hives, and 9-comb spacing for Dadant hives. Made to fit shallow, deep or Lewis V Supers. Get more wax and honey with fewer frames and less work. Avoid mashed bees, poor spacing. Easy to install. Tested and approved by profit-conscious producers. Write for literature and prices.

**STOLLER Honey Farms** LATTY, OHIO



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Have Been Booked In Advance for All  
the Queens We Raised

We are expanding operations in order to supply the growing demand for our queens.

We have the very latest in Resistant Queens. Bred in Isolated Yards.



1-24, \$1.65; 25-99, \$1.55; 100-up, \$1.40

**JOHN G. MILLER, 723 6th St., Corpus Christi, Texas**

## ● QUEENS—PACKAGE BEES FOR 1949 ●

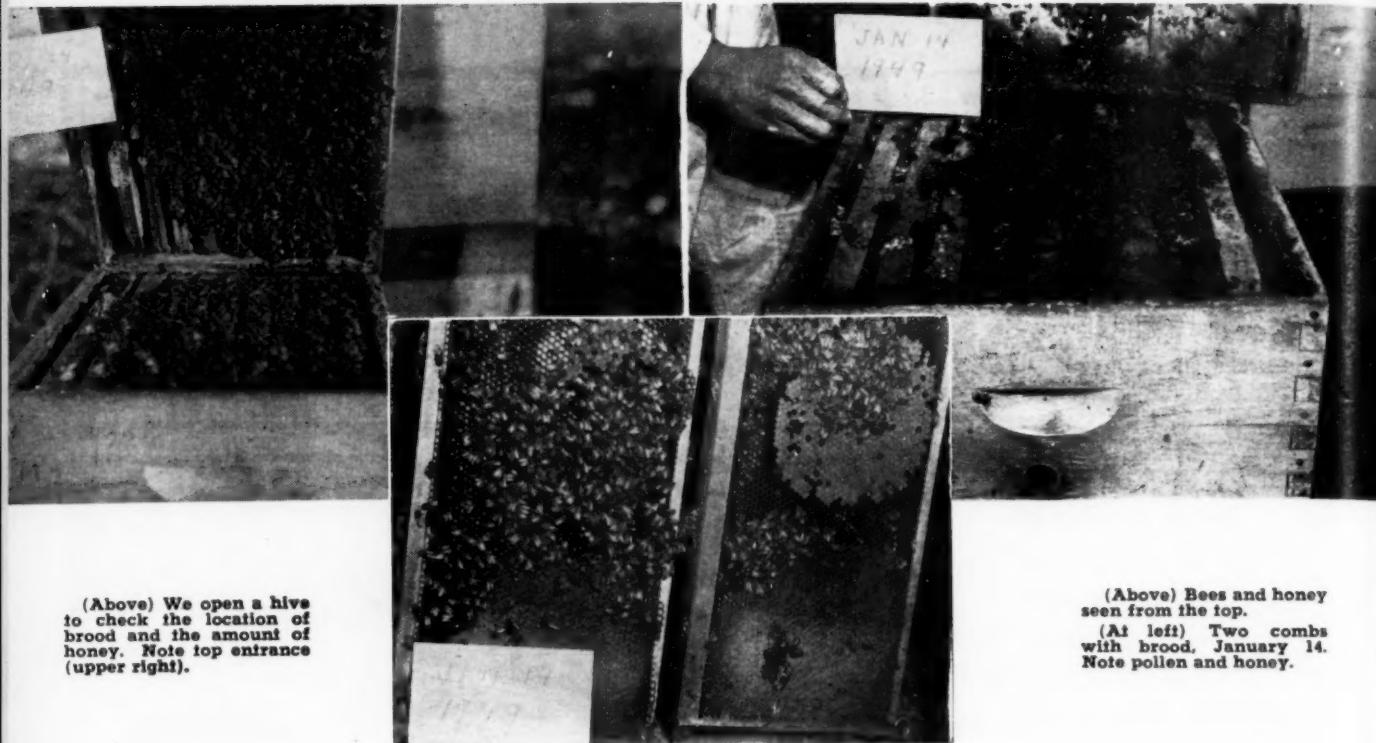
ESTABLISHED 1883

Maximum production is most easily assured with superior bees and queens. That's one way we try to help you make money. Superior bees and queens is our motto at all times. We like to have 50 per cent deposit and balance before shipping date. We believe this is fair to all—as we like to plan and ship the day you want shipment. Price scale:

1 to 10	10 to 50	50 to 100	100 up
\$4.50	\$4.30	\$4.10	\$4.00
5.50	5.30	5.10	5.00
All untested queens \$1.25			Tested queens \$2.00

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(Above) We open a hive to check the location of brood and the amount of honey. Note top entrance (upper right).

(Above) Bees and honey seen from the top.  
(At left) Two combs with brood, January 14. Note pollen and honey.

# When Does Brood Rearing Begin?

by H. J. Rahmlow

**W**HEN does brood rearing actually begin in the new year?

Returning from a 3-week vacation trip on January 10, I asked Dr. C. L. Farrar how the bees were getting along. He said, "Fine and there is quite a lot of brood present for this time of year."

That statement was intriguing. Did we have colonies which were rearing brood in early January? I decided to find out on the very next day the temperature was high enough to inspect brood nests without loss of bees from chilling.

## Brood on January 14

That day came quite soon—January 14, a bright, clear day with the thermometer up to 40°F. I called a young veteran, Frank Skott, of Middleton, to help. He is one of our inspectors and so interested in bees he is usually ready to drop whatever he may be doing to work with them. We drove to our nearest yard, set up the camera, and opened the first colony at the end of a row. It was strong; there were bees in the upper brood chamber, plenty of stores and two combs with empty

cells in the center, but no brood. Noticing a large number of bees in the second or middle chamber, we took out several frames and found one with eggs. This colony had not established its brood nest in the upper brood chamber. We quickly put that frame into the center of the upper brood chamber to establish the brood nest there and closed the hive.

In the next colony we found what we were looking for—two frames with patches of brood as shown in the picture. As this brood is from 2 to 3 weeks old, the eggs were laid the last week in December. Checking with the Weather Bureau, we found temperatures at that time about normal for a Wisconsin winter. Minimum temperatures were: Dec. 26, -4°F; Dec. 27, 15°F; Dec. 30, 2°F.

Checking a few more colonies, we found several with about the same amount of brood and one more in which the queen had just started to lay.

## Brood on February 5

On the morning of Saturday, February 5, Frank Skott called from Middleton. "Looks like a good day for inspecting bees," he said, "do you

think we could look at that colony we took the picture of on January 14?"

"I'm anxious to see how that colony is getting along," Frank said. "I told a friend that we had opened up some colonies and taken pictures of brood on January 14 and he said these sure would all be dead by now."

I was just as curious as Frank, to tell the truth. The weather had changed after January 14; we had some real cold weather and about 6 inches of snow. There were 3 really cold periods during that time. On January 20 a minimum of 19° below zero; on January 30, 16° below; and on February 2, 16° below zero. Couldn't remember a single day since that time when it was suitable for taking pictures. We had planned to take pictures of brood in the same colony on the same date each month but from a practical standpoint that might be impossible; therefore the decision to go out on February 5.

We arrived at the yard about 2 p. m. and found the snow quite deep—at least 10 inches in the lane to the colonies. While I prepared the camera Frank lit the smoker and put on his veil. Then he slowly lifted up the outer cover; bees were clustered

around the escape hole. Next he raised the inner cover and immediately the bees started flying out—but the smoker was ready and quieted them.

I began to take pictures at once, while Frank slowly took out an outside frame, which was full of honey, and then carefully moved frames into that space, watching for brood in the meantime. "Here is some," he said, as he came to the fourth frame.

"See how many more there are," I urged, getting into position for a picture. Frank found two more frames, gently shook the bees off, and set them on top of the other combs so I could take the picture shown. Three frames, with large patches of brood in each, on February 5! This indicated continuous brood rearing since January 14 when there were only two. The large amount of pollen and honey present in the combs, readily available to the winter cluster, a large population, and a vigorous queen was the answer. Frankly we were a little nervous about exposing the brood to a temperature at around freezing, without protection, and certainly do not recommend it.

At this rate of brood rearing, how long before some colonies will be short of both honey and pollen, especially the latter. We plan to feed soy bean flour cakes after the middle of March. How I wish we had some pollen to mix with it! If such colonies as this have an ample supply of honey and pollen constantly available, how many bees will there be by spring, when we really want to

start building up for that clover honeyflow in early June. They should be very strong unless something happens to prevent it.

Why do some colonies begin brood rearing earlier than others? Dr. Farran says it is due to the activity of the bees—some bees are just more active than others, just as is the case with a flock of pullets all hatched at the same time and raised in the same way. Some will start to lay earlier than others. In going through a large number of colonies he has always found this variation in the time and amount of brood rearing at the beginning of the "season."

Egg laying begins early in the year regardless of the amount of food available but the amount of brood which will be produced and whether or not the bees continue to raise brood during February and March will depend entirely upon the availability of pollen and honey. A long cold spell will cause the bees to cluster tightly about the brood. If the pollen is out of reach, brood rearing will stop.

Feeding pollen-soy bean flour cakes right on top of the frames a few weeks before natural pollen comes in will enable the colony to continue rearing brood so there will not be a reduction in the colony population during April when a large population is so important.

#### Brood Below Its Food Supply

What shall we do with colonies rearing brood in a lower brood chamber? It's most important to where it will be next to frames of

honey. If colonies are properly prepared for winter in October and November only a few will need any attention later. It isn't necessary to take out frames to locate the brood. Simply tip up the top hive body as shown in Figure 1. If the bees are clustered tightly in the upper chamber, with only a small percentage in the second one, we know everything is all right. At the same time we can determine, by the weight of the upper chamber, how much honey is still present.

We certainly don't want to give the impression that we are advocating frequent winter inspection of the brood nest. On the contrary, we believe in leaving them alone as much as possible, and to do only what is necessary for their welfare. However, a quick check-up on mild days in January or February may save some of them from starvation and therefore be worth while.

We can learn a great deal about the condition of all colonies by examining a few when the weather is favorable. However, anyone who neglects colonies in the fall with the idea of feeding or making up for poor management by working with them during midwinter is headed for trouble. Here in Wisconsin there may be years when not a single day in either January or February would be suitable for brood nest inspection.

The value of midwinter brood rearing lies in replacing with young bees those which die normally during winter.

Wisconsin.

Frank Skott, Middleton, Wisconsin, holding combs of brood.



Apiary of H. J. Rahmlow, February 5. Windbreak on all sides. Supers numbered and stored near colonies. Road for car to drive next to each colony.



# Discussion

## Comparison of Package Bees With Over-wintered Colonies in Honey Production.

This discussion brought many replies and it is not possible to give each one in this issue. The two best are used now. The rest will be summarized in April.

Carl Rhapsstock, Plainfield, Wisconsin, starts the discussion.

"The relative value of packages and overwintered colonies has been of interest for a long time and I have tried to make careful comparisons. After three years of keeping records, in my location the overwintered colony is more valuable than the package.

"I am not a large beekeeper, running from 120 to 140 colonies in small yards of about 25 colonies each. Records have been kept of each colony and at the end of each season have been summarized. I have tried various shippers and different sizes of packages and finally settled down to one shipper and the two-pound package. There are many good shippers with stock just as good but my present shipper has one great recommendation: **The bees always arrive on schedule.**

"Here is a typical record for a yard in 1946:

16 overwintered colonies averaged 102½ lbs.

2 packages installed April 13 averaged 65 lbs.

3 packages installed April 25 averaged 90 lbs.

3 packages installed May 6 averaged 73 lbs.

"The average production for the entire yard was 82½ lbs.

"There is a great variation in the yields of different locations from season to season. To correlate the results from different yards, therefore, I gave the average of each yard the value of 100. On this basis the overwintered colonies in the yard above produced 124% of the average per colony in the yard.

"Averaging the production of all of the yards each year I get this table in percentage of production:

Overwintered colonies in 1946 — 115%, 1947—178%, 1948—135%, Average for 3 years—143%.

Packages installed April 12-16— 1946—90%, 1947—45% 1948—96%, Average for 3 years—77%.

Packages installed April 20-22— 1946— , 1947—103%, 1948—98%, Average for 3 years—101%.

Packages installed April 25-29— 1946—101%, 1947 , 1948—91%, Average for 3 years—96%.

Packages installed May 1-6—1946 90%, 1947—114%, 1948—107%, Average for 3 years—104%.

Packages installed May 10-12— 1946— , 1947—64%, 1948—60%, Average for 3 years—62%.

"We might assume then that if the average production of all colonies for a season was 100 pounds, we would obtain 143 pounds from overwintered colonies and only 62 pounds from packages received after the 10th of May.

"However, all factors must be considered. It would appear that packages received before the middle of April were less valuable than those received a little later. This is subject to some doubt. The low average for the three years, 77 per cent is caused by the low production of packages in 1947. When we examine the records of that year we find that almost all of the queens were superseded. The season was backward, Nosema was prevalent in early spring and a poor batch of queens was definitely the cause of the only fair showing of the packages received after April 25, 1948.

"There are other factors in the advisability of using packages instead of wintering, such as relative cost of honey or sugar for wintering over the bees as against cost of packages. Another factor is the time of arrival of the main honeyflow. I have one yard where most of the honey comes from white Dutch and alsike clover, and there, records show an even more pronounced bias in favor of overwintered colonies. An-

other yard receives most of its flow later in the season followed by buckwheat and marsh flowers and the packages make a far better showing. So I believe that each beekeeper must decide for himself which is the most profitable for him. When a winter comes like the one a year ago, it is either packages the following spring, or else."

### Here Is the Opposite View From

Julius Lysne, also from Wisconsin, "Many beekeepers conclude there is perhaps little difference between packages and overwintered colonies but the advantage seems to be somewhat on the side of the package. The real test is cost. With good wind-breaks there is seldom any difficulty in wintering strong colonies provided with ample winter stores and a good queen. On the other hand a two-pound package with a queen can be obtained for \$3.00 to \$4.00 plus express (here about 60 cents). A hive body of about 45 pounds of honey will cost \$9.00, at a retail price of 20 cents per pound.

"Two-pound packages installed on drawn combs of honey and pollen on April 10 will build up to a very strong colony by June 10, about the beginning of the honeyflow here. As the colony has a young queen there is no trouble with swarming, there is less equipment needed as four bodies will take care of a colony in place of the five usually required with overwintered colonies.

"The queen is killed in September and each colony allowed to dwindle out. While the population is disappearing the bees carry in a larger amount of pollen for the packages in the spring.

"The greatest objection to the packages is the supersEDURE of queens. This can be controlled to a large extent by early release of the queen by the direct release method. In any case the queen must be released within 36 hours."

**April and May Discussions—** For April RESULTS FROM THE USE OF POLLEN SUBSTITUTES OR SUPPLEMENTS. For May, WOULD YOU ADVISE A YOUNG MAN TO TAKE UP BEEKEEPING AS A VOCATION? Send in your contributions on these two subjects to reach us on or before the fifteenth of March. (The May Discussion subject was suggested by Carl G. Rhapsstock, of Wisconsin).

# Langstroth Was One Hundred Years Ahead of His Time

by Merritt I. Taylor

Langstroth did not believe in packing bees. According to his understanding bees winter best in the North in unpacked, unpainted, ordinary hives, open at top and bottom, exposed to the sun but sheltered from the wind. Langstroth also held that upper ventilation is essential, especially for weak colonies; and also stated that the dampness caused by condensation in the winter cluster in packed, unventilated hives was sure to produce dysentery and cause complete or partial loss. Langstroth had an uncanny ability to see through a maze of contradiction and come up with the correct answers.

Much credit is due C. L. Corkins for proving that bees in clusters consume less rather than more honey with a successively dropping temperature; also for emphasizing the statement of Herman Rauchfuss: "Bees do not freeze to death, they starve."

E. B. Wedmore, president of the British Beekeeping Association, in his book, "The Ventilation of Beehives" presents further proof of Langstroth's findings. My own article, "Panel Heat in Beehives" (February 1946), explains the phenomena of the sun's effect on the winter cluster and tells why the air temperature in the hive is a minor consideration.

Bees in the winter cluster are in deep rest like a person asleep in bed,

conserving the maximum of their energy.

A fundamental, largely overlooked, is the harmful, far-reaching effect of condensation of water vapor from the winter cluster when it is trapped in the hive.

Having built and proved to my satisfaction that an insulated hive with a 6-inch bottom board, 10-inch side walls, and 12-inch top is nothing but a refrigerator, I tried the other extreme; the thinnest hive possible with bottom entrance and completely open to the atmosphere at the top. To exemplify the principles advocated by Langstroth, what hive could be thinner than one with a  $\frac{1}{4}$ -inch plate glass for the bottom board with sides and ends of glass and with a double glass top with fifty  $\frac{3}{8}$ -inch holes open to the atmosphere to provide ventilation.

This hive was located in Richmond, Virginia, during the winter of 1948. Examination on February 28 showed that this colony had brood in four combs and, like my other yards provided with adequate ventilation, it was free from dysentery and did not have spring dwindling.

Virginia winters are difficult for bees because there is some zero and sub-zero weather with considerable variation in humidity. After the middle of February, with brood rearing under way, there were extreme

temperature changes. February 29 was a record 81 degrees but on Mar. 1 the temperature dropped to 31 degrees (with brood in four combs). On April 4 there was a record low of 19.3 degrees with the cluster covering the brood easily.

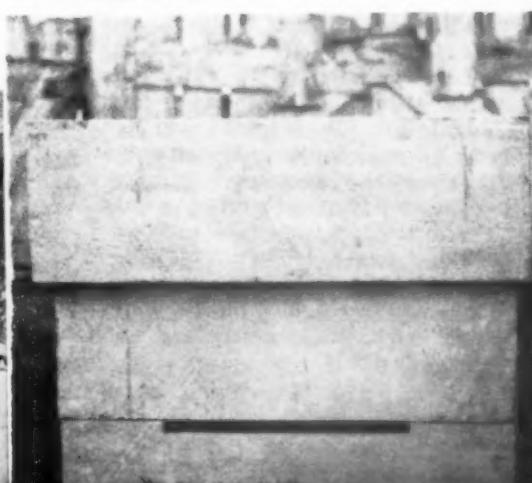
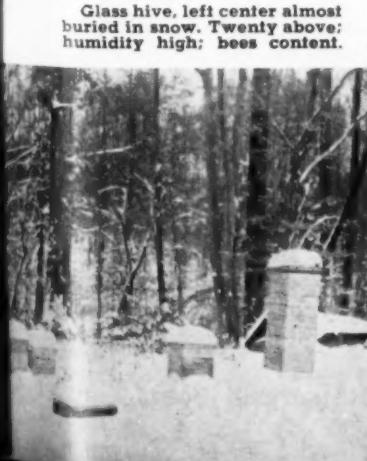
An erroneous conclusion reached by many beekeeping authorities is that the colder it becomes the more heat the bees produce in the cluster; that this heat is produced by muscular activity and that packing is necessary to conserve it.

Ventilation was taboo because, as E. L. Sechrist says, "convection currents carry off a lot of heat." Many state that the cluster heat is dissipated by conduction, convection and radiation, but most, if not all, writers on the subject misinterpret the practical application of heat loss and gain in wintering.

One function of a hive in winter is to produce an environment which will allow the cluster to lose a regulated amount of heat without depleting its energy and length of life. Bees must have fresh air in cluster. The cluster gives off heat, carbon dioxide and water vapor. Failure to evaluate the harmful effect of the condensation of this water vapor has been a major stumbling block in our thinking, and in our failure to differ-

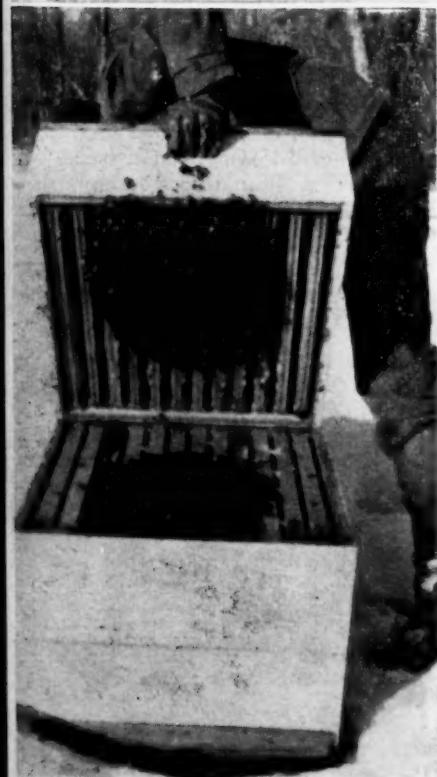
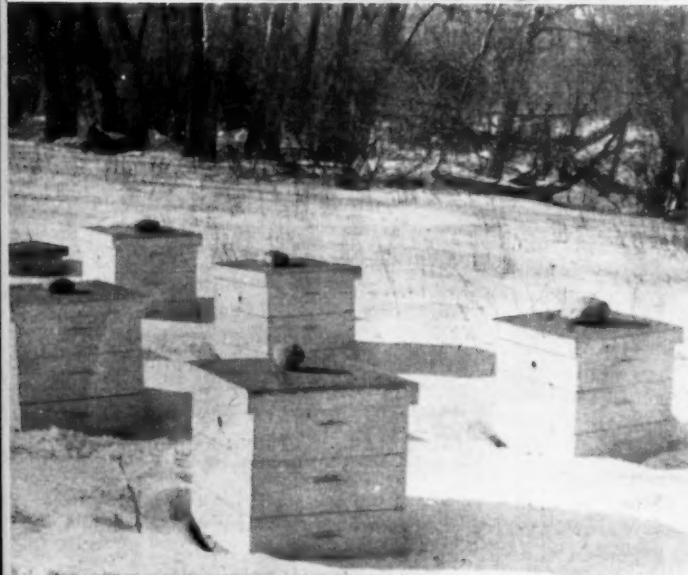
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(Below) Large hive, heavily protected.  
(At right) Glass hive with open front, holes in top.





Like most everywhere, we have had more cold and snow this winter than for thirty years. But, as this is written, bees still in excellent condition. (Top left) A bee yard, framed by distant mountains. (Center left) A corner of a twelve frame yard. Colonies in January have to look like the one at the lower left if they do well in July. (Pictures by Jack Holzberlein).



## Modern Methods Lower Costs

by

John W. Holzberlein, Jr.

**A**S this is being written commercial honey producers find themselves in a critical position. They are faced with the fact that honey prices have taken a sharp drop while most of the costs that are incidental to production have continued to rise. In studying the situation that has prevailed for the past two years we can readily see that some adjustments will have to be made or it will be impossible to maintain decent living standards, pay wages that compete with those paid by the industries around us, and continue in the honey producing game. Some change will have to be made soon. If we want to stay in our chosen work (and most of us will stay whether we want to or not—we had our chance to sell out in 1945 and 1946) we will have to either raise the price of honey by some means or by some other means lower the cost per pound of the honey we produce.

Considering the circumstance neither method is going to be easy. A combination of both is possible, and it would not be unreasonable to attempt just that since there is little danger of the honey producer ever being overpaid for his labors and his service to agriculture. It will take **united effort** on the part of the whole industry something which has yet to be accomplished, before we can put on an advertising, price-raising program. But since an effort to lower production costs can be attempted individually the substance of this article will deal with the second strategy in our fight for existence as part of the honey industry.

There will be nothing new offered here, said differently perhaps, but the rules for producing more honey for less money have already been laid down. I shall try to review them. And my earnest suggestion to any-

one who wants to continue to produce honey, enjoy it, and prosper by it is this: When you finish reading this article secure copies of U.S.D.A., Bureau of Entomology and Plant Quarantine Bulletins Numbers E-531, E-536, and E-693. Study them. Read them over, not just once, but many times for the information contained there is so concentrated as to make it almost impossible to absorb it all in one time over.

There are many phases to successful honey production. And there are many variations of those phases. These are caused somewhat by the temperament of the beekeeper, but mainly by difference in climate, particularly temperatures and rainfall. But since most of the surplus honey of the Nation is produced in an area having similar weather conditions, this being that of the North Central and Intermountain states, all references will be made to that area and individual adjustments will have to be made to fit other specific cases. For example here in the Intermountain area most of the moisture during the growing season is supplied by irrigation, and our higher altitude retards our season so that though we are farther south we still have about the same climate for honey producing purposes as the southern part of the Red river Valley and the Lake States. These adjustments for season will have to be studied and worked out by each individual.

Perhaps the first consideration in lowering production costs should be given to location. There are some areas within the large area we are considering where large scale honey production is impractical, either from the standpoint of the quantity of honey produced or its quality. One cannot consistently produce small crops and show a profit; nor can one constantly produce crops of poor quality and expect to make a return equal to that made in an area that produces a high quality honey. But no matter what the location, good management practices pay. In better areas possibilities for profitable yields are more likely, however. On the other hand, better management may make it profitable in an area where it has previously been considered otherwise. There are many of these borderline territories and if honey production is to expand in the years to come it will largely have to be into those places. The better regions are now nearly all populated with beekeepers, many of them overpopulated.

A word should be said about equipment. It seems true that large hives produce large colonies that in turn produce large crops. But even an 8-frame hive can be made large by piling it high enough. Since most of us have our equipment nothing more will be said about it, except that as one produces more and more crops above a 200 pound average he appreciates having them nearer the ground. For that reason a hive that is as wide as it is long and uses a shallow frame seems to be ideal.

It has been definitely proven that large colonies produce more honey in ratio to the population than small colonies. Believing this, all we need to know further is how to get large colonies and how to maintain them. Only a small part of our beekeepers know what a really large colony is, having seen only a few of them each year. And since these often swarm and are lost, or become demoralized by swarm control practices, many beekeepers think they prefer the smaller colony. I say "They think" because once they learn the rules for developing and operating large colonies, and have acquaintance with the results, they think again.

These rules are comparatively simple, and in part are practiced by almost all of us. Where we nearly all fall down is that we do not go far enough. Our good queens are not good enough. Our reserves of honey and pollen are too small. And our brood room and our super room when the time comes to add them, are given too sparingly. These too conservative operations do not go along with intensive, large colony management. That does not mean that a great supply of room will solve all our problems. It will not, for all things must be in balance. But it does mean that many of us will have to revise our conception of the words "large" and "plenty," and some more words that we use so often and so loosely when speaking of a honey gathering colony.

We all know that the size of the crop depends upon the number of bees the colony had when nectar gathering conditions were at their best. We also know that the size of the colony depends on the amount of brood that was brought to maturity. But do we know all the factors that influence the bringing of this brood to maturity? Do we know when that brood rearing began? Do we know if brood rearing was interrupted, and why? We all know that the quality of the queen controls the size of the

colony, but do we know that without adequate reserves of pollen and honey during the early spring that queen might just as well be a runt? And do we know that unless a supporting population is present, that the best queen, with all the pollen and honey in the world will have only a tiny brood nest? For that reason I say that all things must be in balance. It is the old case of the chain being no stronger than its weakest link. And when we fail to supply one of the necessary factors in building a large, populous colony, we fail.

In the large honey producing area which we are considering brood rearing normally begins in January. If ample supplies of honey and pollen are present, and a large number of bees were present at the beginning, the colony will likely have completed two full cycles of brood by the time we see them, or maybe even think of them. By the first of April it is possible to have two or even three hives full of bees, many of them young, just emerged. This is important for the most strenuous work a bee does is that of brood rearing. Nothing else so depletes its vitality, and by this time many of the wintered-over bees are "used up." If for some reason the brood cycle has been interrupted, and it often is, we have a weak colony at the very time when we should begin to produce the bees that will make our honey crop.

Let us look at some of these interruptions that take place in brood rearing, often without our knowing it. Perhaps the most common is starvation of the brood for lack of pollen. Unless there is a large supply of pollen adjacent to the brood circle bees almost always exhaust it before new pollen is available in consistent supply from the field. It might be said that they are likely to exhaust it no matter how large it is, for as the brood circle increases an ever larger consumption takes place and so it goes until it is entirely depleted, or a new supply becomes available. No matter where we live there is almost surely a time when pollen is in critical supply. It is at this time that we should feed a pollen supplement **within the hive**. This makes it available regardless of the weather.

Large pollen reserves call for large honey reserves. Far more honey is consumed in brood rearing than many of us suspect. If we wait until the early spring flows to start our

(Please turn to page 139)



(Left) Mrs. E. H. Bremer today; (Right) Elizabeth Jean Parks at five years of age.

## Elizabeth Jean Parks

### Our Cover Lady

Florence Tomlinson once more makes a charcoal sketch with close likeness to the young lady chosen for this month's cover illustration and biography.

Elizabeth Jean Parks—Mrs. E. H. Bremer—back and forth for twenty-five years one name or the other has brightened up the horizon of bee-

H. B. Parks, Curator, Museum Botanist in Charge, S. M. Tracy Herbarium, School of Agriculture, Agricultural and Mechanical College of Texas.



keeping. As Secretary to her famous father, H. B. Parks, her work for the industry was through his beekeeping associations and contacts. However as Secretary of the Texas Beekeepers' Association and as President of the National Auxiliary her own work was outstanding.

Elizabeth Jean Parks was born November 24, 1906, at Moraine Heights, a grain ranch near Sioux Falls, South Dakota. When less than one year of age she accompanied her parents, Mr. and Mrs. H. B. Parks, to Sitka, Alaska, where her father had been appointed as an instructor in the Sitka Training School for native children. She attracted much attention from the Alaskan women because of her long yellow curls. She became a great pet not only with the school but the native village as well.

At the age of four years she returned to the states where with her family she visited her grandparents at Greenfield, Illinois. Her father being transferred to a Presbyterian School at Hot Springs, North Carolina, the Sitka school was closed to build a million dollar plant, which during the last World War was utilized as a U. S. Flying Field. Thus in one year she traveled from the Arctic Ocean to the Atlantic. In the fall of the next year she accompanied the family to Albany, Mo., where her father was appointed

Head of the Science Department and also Dean of Palmer College. It was here that she entered the Albany schools being one of their star pupils.

The first World War brought the family to Bryan, Texas. After three years in Bryan the father was appointed to go to San Antonio to build and operate The State Apicultural Laboratory. She graduated from the Old Main Avenue High School, at the head of a class of more than three-hundred. The next year she attended the forerunner of what is now Trinity University. In the fall of 1925 she taught her first school, in Wilson County. She was offered several flattering positions but due to increased work was persuaded to become her father's efficient secretary, which position she held several years. During this time she became one of the best known characters in beekeeping. Her work as secretary of the Texas Beekeepers' Association and National Association was outstanding. As she attended many of the meetings she became one of the best known of the Beekeeping Fraternity.

On April 6, 1936, she became the wife of E. H. Bremer. While still taking an active part in church work and organization work, she spends most of her time looking after her husband and little daughter, Elsie Jean, born September 7, 1943.



## John Asks Questions

"Come in," said the old Beemaster in response to a timid knock on the door of his workshop. "Oh, hello John, come in out of the cold. Sit down."

John sidled into the warm room to sit on a box at the work bench beside Mr. Miller.

"Nailing up frames, Mr. Miller? You must be getting ready for spring."

"Yes, I like to have equipment shipshape before I go out to the bees. It takes a load off my mind when the weather opens up. Too much to do then. Now I have plenty of time to do the job well. No use fixing equipment to last a long time and do a half-baked job of it."

"I have been wondering," began John, "since I started reading the books you loaned me this winter, if I dare start with a few bees this spring. I know scarcely anything about them but I am lucky to have you next door so I can ask questions. Then too, I go out with you so much to the yard and see you working that I might soon get onto the tricks."

"Good, my boy, I will give you all the help I can."

Watching the Beemaster's deft fingers, John wondered if he might in time become as skillful as his old friend.

"What should I do this winter to get ready?" resumed John.

"Go on with the reading. I gave you a beginner's book and one of the larger text book. The trouble with books is they don't tell you all the things you will stumble into."

"That's what bothered me," John

agreed. "I don't know enough about equipment to order intelligently and I don't know where to get the bees. I don't even know where I'm going to put them. So far all I have is a lot of interest."

"Your interest is a pretty good start. Everything else will come along if that keeps up," replied Mr. Miller.

"What sort of hives should I get?"

"Well, a beehive is just a tool. If you are skillful you can produce a good crop of honey from the bees in any kind of hive. However, if you should want to sell out it is easier to sell the hive used by most beekeepers and it is easier to get a good price."

"On the other hand, success in producing honey comes mostly from the management you give your bees and this must be based on their needs and the events of each season. Likely bees in 10-frame hives are more easily sold but when it comes to the needs of the bees and the ease of management and the number of colonies you can keep with the time you have, it is likely that the larger Modified Dadant hive with shallow supers is better."

"What kind of hives have you?" asked John, thinking that maybe this question would put the old man on a spot.

But the old Beemaster quickly countered:

"Oh, I have both kinds. I get about as much honey out of one as the other, but I think I can keep more bees in the same time with the large hive. In the long run I don't have to buy quite so much equip-

ment for each colony."

"Well, I guess I'll get a hive of each kind and see how I like them," stated John.

"Better get more than two colonies, John, to start. If anything happens to one or both it is harder to make a comeback. It may be safer to start with five or six colonies."

"Where do I get the bees?"

"It is best to send for package bees. Set the equipment up this winter. Remember, when you order your bees do not buy on price. In the bee papers here," said Mr. Miller, pointing to a pile on the back of the bench, "are advertisements from breeders in the South who produce fine bees to ship north every year. You should have bees arrive here about the time of fruit bloom. I can help you put them in the hives but I think you had better try it yourself. You can run over here and ask questions when you want to."

"The bees will come in wire cages like potatoes in a sack. Study the books and see what it says about taking care of package bees, how to put them in the hives, what to do for them, and so on. In the meantime go ahead and set up your equipment."

"Tell you what I'll do. I'll loan you enough hives in the flat from my own stock. As to cost, we will work that out somehow together. It won't be too much. You can work on your equipment right here in the shop and I will help you whenever you need any assistance. Funny how many mistakes a beginner can make nailing up equipment."

John meditated a minute, thinking over the things that Mr. Miller had told him. He was anxious to make the start but he was a little afraid of mistakes.

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# American Beekeeping Federation

## —Its Objectives and Accomplishments

Officers of The American Beekeeping Federation, meeting at Atlantic, Iowa, January 11 and 12, 1949, set up a list of "Objectives for 1949." While it was understood that most of them already had been requested by the beekeeping industry in the form of resolutions, it was with a great deal of study and deliberation that these Objectives were selected as those which were of immediate nature and real importance to the common interest and general welfare of the entire industry. It should be considered that this does not represent every thing that the Federation and its committees will undertake during the year, but it was thought advisable to adopt the following as immediate at this time:

1. Price support, preferably in the form of a loan program, that will assure the beekeeper 75 per cent of parity or 12 cents in bulk containers, whichever may be the greater.

2. Additional honey in school lunch and institutional feeding to remove an apparent current surplus of some 5,000,000 pounds of honey and at the price outlined above.

3. A renewal of our request for research on old formulas and the creation of new ones for the use of honey in the baking industry.

4. A renewal of our request for additional research on the effect of agricultural insecticides and herbicides on honeybees.

5. To continue and expand the work of the committees of the Federation for the common interest and general welfare of the beekeeping industry.

Many of us are morally opposed to price support. We do not want production and market controls that may result. But until such time as stabilization of our honey market can be obtained through industry efforts, we see no alternative but to seek price support. We believe that we are in a period when farm commodities are going to continue to receive price support. We believe that more farm products will be supported in the future planning of the government. Until such time as pollination services of our honeybees can be made to pay more of the bee-

keeper's cost, and until such time as marketing methods are developed to the end that price stabilization is obtained, we have little alternative but to seek price support along with other farm commodities.

The percentage—75 per cent of parity—has been established partly because we felt that it would fit in well with the future farm program of price support. It is purely an arbitrary figure but placed in our Objective to take care of possible upward fluctuation in the markets of other items which the beekeeper must purchase. Those who go to Washington to attempt to solve industry problems will be instructed to seek price support, preferably in the form of a loan program, and to set the percentage wherever it is advisable.

What is parity for honey in bulk containers? Sincere efforts have been made by industry representatives in Washington to determine this. Parity is based on the price of a commodity in all kinds of markets in all types of containers, and Washington officials have been unable to tell us what parity is for honey in bulk containers.

We also must not get the price of honey too high—out of line with the price of competitive commodities. Inasmuch as we do not know what 75 per cent of parity means, particularly as applied to the honey producer, industry leaders have preferred to name the figure of 12 cents per pound for honey in bulk containers. It was for this reason that the Washington Conference on Honey Marketing Problems, in their recommendation to the Production and Marketing Administration last September, asked for price support which would assure the producer 12 cents per pound in bulk containers. It is believed that the 12 cent figure would not price honey too high to the consumer, and would still offer the producer the possibility of at least obtaining his cost of production. It was with this background of knowledge and level thinking that the first immediate Objective of the Federation was established.

The stabilization of the price of honey at a figure which will make it

possible for the honey producer to produce and market his crop of honey is fundamental to the continued success of the beekeeping industry. This will prevent drastic reductions in the number of colonies thus maintaining the pollination services of our honeybees in the production of more than fifty of our food crops.

The pollination services of our honeybees is more important than that. It is responsible for the pollination of legumes which are the basis of pastures for livestock and the production of milk, butter, and cheese, as well as beef, pork, mutton, leather and wool. It is one of the chief factors in soil conservation practices which preserves our very soil in order to maintain our agricultural economy. Our legumes make possible the maintaining of our soil fertility resulting in increased yields of food and seed crops as well as the production of vegetables and fruits which are more highly nutritious because of soil fertility. We know that pollination not only results in increased set of seed and fruit but also improves the quality of many of our fruits, cucumbers and other vegetables, and even the length of fiber of cotton. In many respects, beekeeping is the very basis of agriculture and, consequently, of the economy of our nation.

Our second Objective is that additional purchases of honey be made for the school lunch program and for institutional feeding to take care of an apparent current surplus of 5,000,000 pounds of honey. We are asking that this honey be purchased at a figure that will enable the producer to obtain 12 cents in bulk containers. We do not favor a government purchase on a basis which will result in depressing honey prices. But the industry should recognize that the supplying of many thousands of school children with fine quality table honey has a tremendous educational value that is sure to affect the consumption of honey.

The next Objective is a renewal of previous requests of the beekeeping industry. The Federation, in its meeting more than a year ago at Salt Lake City, sent a Resolution to

Washington asking for research on uses of honey in the baking industry. In late September, industry representatives were told by Washington officials that this request had been received too late to get into their programs for 1948, and they suggested that we renew our request. The Washington Conference on Honey Marketing Problems accordingly submitted a recommendation that this research be granted the industry by the Production and Marketing Administration. Inasmuch as no granting of these requests had occurred by the time of the St. Louis meeting of the Federation, Resolution No. 3 again made this request in behalf of the beekeeping industry. This bakery research is only the foundation of what the industry needs to regain our industrial markets for honey.

The renewal of the beekeeping industry's request for research on chemical poisoning of honeybees is our fourth Objective. This is of extreme importance to the beekeeping industry everywhere. A host of new insecticides and herbicides have been developed and are being placed upon the agricultural market with little regard as to their possible effects on beneficial insects. An extensive research project will be required over a period of time to determine the potential injury to bees of these chemical poisons, and to make recommendations to prevent their destruction to our bees.

Our last Objective is broad—to continue and to expand the work of the Committees of the Federation for the common interest and general welfare of the beekeeping industry—a host of activities. This is the grinding part of our job but the part that will bring the greatest benefit to the beekeeping industry over a period of years. The work of nearly every committee of the Federation is long-range in nature—for the purpose of building our organization and for the purpose of improving things within the industry and of establishing the beekeeping industry in its true and proper place with respect to other agricultural and industrial ways of livelihood. This is the work that ultimately will obtain the greatest benefits for the industry over a period of time.

To give the reader a better idea of the work of the Federation, a partial list of what the Federation has accomplished for the beekeeping industry during its relatively short period of existence is given below:

1. The Soil Conservation Service

and other agricultural groups have become interested in the importance of the pollination service rendered by the bees to the extent that priority is now given to the planting of those plants beneficial to the honey producer.

2. A more judicious use of insecticides and herbicides is being established in agricultural practices.

3. Progress has been augmented in better control of bee diseases, the production of improved strains of honeybees and more efficient methods of colony management.

4. Better grades for honey are being perfected, along with regulations to require the use of grades in interstate shipments of honey in consumer size packages.

5. Research has been re-instituted on the improvement of strong flavored honeys and to find a use for them in industry.

6. A trial advertising campaign has shown that the market for table honey can be increased materially.

7. The Federation was one of the first to recommend an equitable method of payment for the pollination service of honeybees and to suggest a pattern that might be used to secure this payment.

8. Great progress has been made in obtaining recognition by the Government of the need for granting to honey as full and complete recognition as is granted any other farm commodity.

9. The Federation has developed and presents to the members of the beekeeping industry an improved plan of organization that will permit for the first time in history a close coordination of our many organizations of beekeepers.

The American Beekeeping Federation seeks to do those things for the beekeeping industry which are outside of the scope of the American Honey Institute. The American Honey Institute has done an exceptionally good job in its work to tell the American public how good honey is and ways of using it. The Federation, as does the entire beekeeping industry, wants to see the Institute grow and prosper.

The American Beekeeping Federation now represents all phases of the beekeeping industry—the honey producers, the queen rearers, the package bee shippers, the honey packers, the cooperatives, the manufacturers, the officials of beedom, and all other phases of the entire bee and honey industry. We have an organization in which cooperative thinking can exist in the place of

competitive thinking—we have a real opportunity to work together for the betterment of ourselves.

This is a time when the best kind of organization is essential to deal with our many problems—problems that we cannot possibly solve independently. We know full well that it is imperative that each of us must do something to help ourselves. We only can do this by working together. That is the reason for the Federation. Its purpose is stated simply: **To engage in any activity which will promote the common interest and general welfare of the beekeeping industry.**

The American Beekeeping Federation can succeed only to the extent that it has the full and earnest support of every member of its industry. That support must be financial, moral, and physical. Financial support because it takes money to operate the office of the Federation as it serves the beekeeping industry, to issue the News Letter, and for travel. The basis for support by the beekeeper is \$5.00 for each 100 colonies or fraction of 100 colonies. It is well considered that 5 cents added to the per colony cost of production is indeed a small sum to pay for the work of the Federation in behalf of the industry. Manufacturers, dealers, packers, and the like are asked to support the Federation on the basis of one-tenth of one per cent of gross annual sales. To all others with an interest in the beekeeping industry memberships will be granted at the minimum fee of \$5.00.

Your support also must be moral for we cannot hope to succeed without your backing. And, most important, your support must be physical—to help carry on the work of the Federation—to build our organization on all levels, local, state, and national, for we can only be a strong national organization if we have strong state and local associations as our foundation.

This is the part that you can perform in order to promote the common interest and general welfare of the beekeeping industry. This is your opportunity to do something to help yourself. It is your investment in the future of your business. It is not a large part but it is fundamental to our success as an industry. It is only by putting all of these parts together that we will be able to solve the numerous problems that present themselves to us now and in the future. Working together, there is no task that will be found too great.

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# A Biography of Langstroth

Part III—The Hive Is Patented

by Dr. E. F. Phillips



WHEN Langstroth, in his revealing flash, knew that the bee space was the solution of a workable beehive, he quickly confided his discovery to his college classmate, Rev. E. D. Sanders, later founder of the Presbyterian Hospital in Philadelphia, who took an interest in bees. That evening until a late hour they discussed the presumed advantages of a movable frame hive over the former bar hive. After Sanders had retired Langstroth got out his faithful journal in which he recorded his observations and wrote a record in it of the entire plan. In this journal, now a treasured item in the beekeeping library at Cornell University, may be found what he wrote that October night, duly dated and with sketches. This account written that very first night places on record what he thought would follow the uses of this discovery, a remarkable forecast of modern beekeeping. It seems virtually certain that at some time other beekeepers must have left a shallow space in a hive in which bees did not build comb nor deposit propolis but it took Langstroth to see the significance, and therein lay his greatness.

In the spring of 1852 he moved his bees to a new site, added a number of colonies, and placed a skilled beekeeper and cabinet maker, Henry Bourquin, in charge to convert the former hives to the new type and on the first good day they changed over. During this procedure an old beekeeping friend entered the apiary and called out to Langstroth, but

Langstroth was so occupied that he paid no attention to the shouts. Finally the old Quaker beekeeper touched him on the shoulder and said, "Friend Lorenzo, you are so taken with your new hive that you seem not able to hear me nor to see anything else. No doubt you think you have made a great invention, but I say, you have made no invention at all but rather a perfect revolution in beekeeping!"

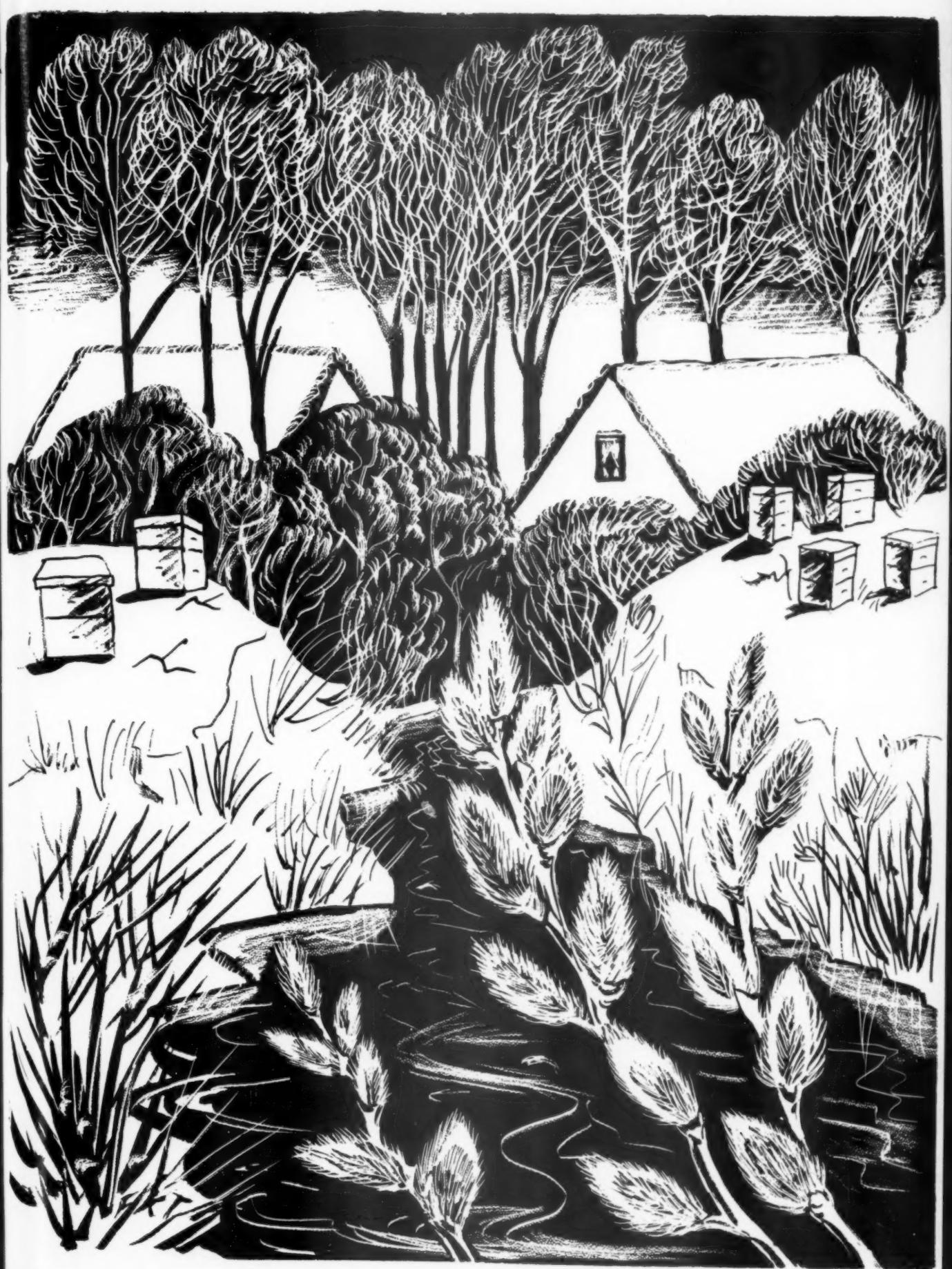
Application was made for a patent on January 6, 1852. The patent was granted October 5 of the same year. He then sold the good will of his Philadelphia school, gave up teaching, proposing to devote his time to bees. Before the end of the summer and before the patent was issued, his old head trouble returned and being unable to manage the apiary it was sold. By the time the patent was obtained, his health returned and he then decided to go back to Greenfield where he hoped to secure capital to introduce the new hive. Meanwhile he decided to write his book and in a few weeks (1852) he wrote this important volume.

Leaving his wife and children in Philadelphia for the time being, Langstroth went to Greenfield in November 1852, making his home with his sister Margaretta and her husband, Almon Brainard. He found financial support in Dr. Joseph Beals, a dentist and former parishioner. To Dr. Beals went a half interest in the patent. They sold the patent rights for western states and territories to Roswell C. Otis, Kenosha,

Wisconsin. The Langstroth book appeared just about the time the partnership was completed. Rights to use the hive were sold to a considerable number of men. W. W. Cary, of Colrain, Massachusetts; Richard Colvin of Baltimore; Charles Dadant of Illinois, who with his son, later took the responsibility for the revision of the Langstroth book, and did much to make the hive known in France, Italy, and ultimately throughout the world; Adam Grimm, of Wisconsin, one of the earliest successful comb honey producers; and Moses Quinby, the father of commercial honey production.

The story of Quinby's adoption of the Langstroth hive is interesting. Quinby published an excellent book on beekeeping in the very month that Langstroth's book appeared. The two authors were quite unaware of each other. In Quinby's first edition is a tirade against patent hives; a warning in general more than justified because then the market was flooded with worthless hives with false claims of superiority.

Quinby was a Quaker and he believed that if God permits one to make a discovery there is a moral obligation to give it without price to mankind, and so it was a shock to him to learn that Langstroth had patented his hive and too, that it was a vast advance over previous hives. He arranged to test it but it was not until 1858 that he put anything about Langstroth's hive in his own book.



March, 1949

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# American Honey Institute

In olden times the ancient mariner felt compelled to spin his tale of the high seas to the world around him. He would linger near the wharfs, eager to tell his story, anxious for fear no one would listen to him.

So it is with the American Honey Institute. Compelled by an urge to help every beekeeper succeed in his honey business, the Institute sends out these newsnotes every month, hoping that America's beekeepers will read them, and heed them.

So listen to our tale for today . . .

\* \* \*

Honey for Breakfast Week is not as far away as you think. Every year the Institute sets aside the week of Easter as Honey for Breakfast Week. This campaign to promote honey begins on Easter Sunday and lasts for the entire following week, April 17-23.

It is during that week that honey will be promoted as an essential food at the breakfast table. Honey will be stressed as a necessary supplement to every child's diet, a food that adds color and originality to an otherwise stereotyped meal. It will be publicized in the nation's newspapers and magazines; it will be heard on the radio. Honey will be the word of the week, but **only**—

1. Only if **EVERY** beekeeper cooperates in this promotional enterprise. No one can expect results if no one works for them. The efforts of the American Honey Institute will be great, but they necessarily will be on a national scope. It is up to each individual beekeeper to bring Honey for Breakfast Week down to the local level, to see that Middletown, U. S. A., knows what it is all about.

2. And only if every beekeeper realizes that the word "promotion" more truthfully could be spelled with dollar signs; those dollar signs are the ones you furnish.

Now's the time to get your Honey for Breakfast Week plans lined up. Don't let it slip!

Here's how to start:

1. Get the honey placed in the stores. Then send for the Honey for Breakfast Week streamers that the

## Commercial State Bank Building, Madison 3, Wisconsin

American Honey Institute is offering **free** to beekeepers. These can be used in various ways. One streamer placed in the front window of every store along Main Street is an eye-catching sight. Make sure that the grocers in town have plenty of the streamers to use as they see fit.

2. Contact your local newspaper and put short ads in the paper; in the ad you might include a short honey-for-breakfast recipe such as grapefruit with honey, or cereals with honey. Waffles with honey butter also make an appetizing display in an advertisement. The Institute already is having mats made that can be used in this respect.

3. Radio spots between programs sometimes can be had for the asking on small town stations. You might talk to the station manager and present him with 20 second spot ads such as these:

**This is honey for breakfast week. Add to your breakfast diet with nutritious appetizing honey.**

**This is the week for honey. Use Honey at breakfast-time as a good energy food. Try honey on your grapefruit tomorrow morning.**

**Wake up with honey! During honey for breakfast week, April 17-23, include honey in your breakfast menu.**

And you can think of many more.

4. The Honey for Breakfast folders here at the Institute offices are waiting to be used. Send for them and see that they are distributed to the right places.

Two Sweet Gifts, Citrus Fruits and Honey, \$1.00 per 100.

Honey and Cereals, \$1.00 per 100.

Honey to Start the Day Right, \$1.00 per 100.

Honey for Breakfast, \$1.00 per 100.

Folders sent postpaid.

5. Try special functions. Maybe your wife can change her afternoon bridge club to a Honey for Breakfast Party and have her friends come at

10:30 A. M., to see what a good breakfast honey makes.

6. Send your check for nationwide promotion to the American Honey Institute, Madison 3, Wisconsin.

Whether you follow these six steps and others that you think of is your decision. But after all, it's your honey that will be sold.

\* \* \*

In the pages of our annual directory is found another tale, one that is often told and retold. It is the tale of the one dollar contributor.

For us this is a tale of mixed emotions, for we are at once glad for the donation, but disappointed by its size. The donations are sent, we are sure, with good intentions and a sincere wish that the dollar might speed us along the honey promotion path. The cold, hard facts have it, however, that one dollar will not even cover the cost of printing and mailing the member's bulletin to the donator for that year.

Let's make it \$2.00 instead of \$1.00 this year!

\* \* \*

For those who are selling honey through stores a special promotion will be on during the month of April. If interested, write the American Honey Institute for information.

\* \* \*

## HONEY BRAN MUFFINS

1 cup sifted all purpose flour  
2½ teaspoons baking powder  
¾ teaspoon salt  
¼ cup vegetable shortening  
1 cup bran  
½ cup nuts, chopped  
1 egg, beaten  
½ cup milk  
½ cup honey

Sift flour, baking powder, and salt. Cut in vegetable shortening fine. Add bran and nuts.

Combine egg, milk, and honey, and add to dry ingredients, stirring vigorously until all flour is dampened.

Bake in greased muffin pans in hot oven (425° F.) 20 minutes.

Makes 12 muffins.



## Cement Coating for Nails

During the period of scarcity of materials which we have not forgotten, I had trouble getting cement coated nails. I did purchase a supply which were not coated and mixed a solution of auto gasket cement and denatured alcohol, about 1 part cement to five parts alcohol. This was poured over the nails in a tin can and they were shaken up in this solution until all were slightly moist. They were then poured out on a paper and left to dry. (Wax paper was used to prevent sticking). Result, nice cement coated nails which were equal to the factory ones.—E. F. Bea, Minnesota.

## Advertising by Television

Washington State apples have been publicized in many ways, but last month they were shown for the first time to prospective customers by television. This should be just as satisfactory an avenue for advertising and demonstrating the many uses of honey as it is for apples.

## Insulation for Hive Covers

When installing the metal on the regular telescoping cover I always insert several thicknesses of newspaper between the wood and the metal. Cooler in summer and warmer in winter, and some day in the distant future some heir to the apiary will have some old news to read, when the covers are discarded.—E. F. Bea, Minnesota.

## A Mouse-Proof Bee Entrance

Staple a piece of 5/16 inch mink wire over the reduced entrance of your winter packed bee hives to keep the mice out and to allow the bees easy passage on warm winter days and in the spring.

Edwin W. Hamblin, Utah.

## Smoker Fuel

Save your old worn out cotton flannel gloves for smoker fuel. They stay lit under almost any circumstances.—Thos. J. Osborn, Oklahoma.



**BRAN MUFFINS ARE GRAND MUFFINS  
WHEN YOU MAKE THEM THIS WAY!**

These Honey Bran Muffins served with Honey Strawberry Preserves and Honey Orange Marmalade with a scoop of Honey Butter just can't be beaten. Try them today!

# Package Bees Italian Queens

for 1949

**From BURLESON you get:**

1. Queens from proven high producing stock.
2. Overweight packages.
3. Choice of shipping dates April 1st to May 10th.
4. Bees free from disease with health certificate.
5. Guaranteed live delivery.

Write, letting us quote you on your needs. If you still have honey on hand we will take it in payment—just send sample.

**T. W. Burleson & Son**

Established 1909

Waxahachie, Texas

## A NEW TYPE QUEENBEE FOR YOU IN 1949

**NORTHERN BRED** Pure all Italian Hybrids. Six generations of controlled instrumental mating have gone into this attempt to breed a better bee for you. Progeny tested for honey production, uniformity, resistance to the foulbroods, gentleness, and other valuable qualities.

LIVE DELIVERY GUARANTEED ON EVERY SHIPMENT

	Queens	2-lb.	3-lb.	4-lb.
1-24	\$1.65	\$4.50	\$5.55	\$6.60
25-99	1.55	4.25	5.25	6.25
100-up	1.40	4.00	4.95	5.90

Please include 10% deposit with order.

**THE RICH HONEY FARMS**

Jeanerette, La.



## YOU WILL BE INTERESTED

in what a leading authority suggested in regard to Bee-Lyon Warmers:

1. The heaters are excellent for building up packages rapidly in spring.
2. They are good for wintering nuclei and choice queens in nuclei.
3. They are desirable for real early brood in Spring for the colony advance as well as for queen rearing.
4. Invaluable for late fall queen rearing.

We have used some of these in this way this year. We see the value of hive heating both in spring and fall."

Send for Free Literature on Bee-Lyon Warmers with Automatic Temperature Control. Write to:

**LYON RURAL ELECTRIC CO.**

DEPT. BJ, SAN DIEGO 12, CALIFORNIA

OUR 38TH YEAR

• 500,000 QUEENS •

• 200,000 PACKAGES

Have been shipped to beekeepers in 37 years. Let MERRILL'S BEES and QUEENS increase your 1949 honey crop.

	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1-24	\$1.40	\$4.50	\$5.60	\$6.70	\$7.80
25-99	1.30	4.25	5.30	6.30	7.40
100 up	1.20	4.00	5.00	6.00	7.00

**ITALIANS**

If queenless packages are wanted deduct price of queens. No charges for clipping or air mailing queens.

MERRILL BEE COMPANY, State Line, Mississippi

Mississippi's Oldest Shipper

## Italian Bees and Queens

1949 PRICES

2-lb. with queen \$4.00; 3-lb. with queen \$5.00. 10 per cent books order. Satisfaction guaranteed.

**G. D. McCary & Son Bee Co.**  
BUCATUNNA, MISSISSIPPI

## WESTERN CANADA BEEKEEPER

Subscription \$1.50 per year, \$2.25 two years, \$3.00 three years. In combination with American Bee Journal \$2.50 per year.

Timely topics on western Canadian beekeeping and all the news about Canada and Canadian markets. You cannot afford to be without the most up-to-date information in these days of great changes. Sample copy free. Address **WESTERN CANADA BEEKEEPER**, 211 Attleck Building, Winnipeg, Manitoba, Canada.

## Italian Package Bees and Queens

**F. E. MORRISON**  
Route 3, Box 3696, Auburn, Calif.

## Quality Italian Queens, Package Bees ORDER EARLY for Preferred Shipping Dates.

**George Lott Apiaries**  
Route No. 2, Baton Rouge, La.  
Member of the A. B. B. A.

## BE WEATHERWISE

Follow the daily rainfall with a tumbler type rain gauge. Accurate and freeze proof—complete with bracket for mounting on fence post or pole. Price, postpaid \$1.00.

**DADANT & SONS, Inc.**  
HAMILTON, ILLINOIS

## THREE-BANDED ITALIANS Package Bees and Queens

2-lb. pkg. with queen \$3.50; 3-lb. pkg. with queen \$4.50; 4-lb. pkg. with queen \$5.50. Only 20% down to book your order, balance 15 days before shipping date. Health certificate, and live delivery guaranteed.

**ROY APIARIES**  
HESSMER, LOUISIANA

## 3-BANDED ITALIAN BEES

2-lb. with queen, \$4.00; 3-lb. with queen \$5.00; Queens \$1.25.

**L. C. BORDELON**  
BREAUX BRIDGE, LA.

## Italian Package Bees & Queens

1-49 50 up 20% down, balance 10 days before shipping date.  
2-lbs. with queen \$3.50 \$3.25  
3-lbs. with queen 4.50 4.00  
4-lbs. with queen 5.50 5.00 and live delivery guaranteed  
Queens 1.00

**Napoleon Guillory Apiaries**  
MARKSVILLE, LOUISIANA

— Advertise in the A-B-J —

American Bee Journal



## THE HIVE AND THE HONEY BEE

Here are facts you never knew before; here are things to do with bees you never read or tried. There is no other book like it.

In 650 big 6x9 pages, you begin with beekeeping history; the honey industry today; how to start with bees; locations; yard management through the year; honey sources; crop handling; honey selling; diseases and enemies of bees; honey as food; how to winter bees in new ways . . . modern beekeeping in every respect and step-by-step.

PRICE \$4.00

With American Bee Journal

(1 year) \$5.00.

Distributor in Canada—General Publishing Co., Toronto. Price 4.95

## American Bee Journal

HAMILTON, ILLINOIS

## Modern Methods Lower Cost

(Continued from page 129)

observations we do not see it go as it is coming in from the field daily. But if we wait for these spring flows to build on we do not get the super-size colonies that produce the extra pounds that make the honey cheap to produce and profitable to sell, even though we take a beggar's price. And in most areas where a spring flow is present it is possible to get a surplus if we have large colonies in time.

While on the subject of pollen reserves it may be well to tell where they come from, and how to get them. Most colonies will store more pollen than they need all during summer provided that there is room to store it. They must store it below the excluder, or it has no value, and they prefer to store it near the entrance. This is where the reversing of brood chambers plays one of its important parts in building large colonies.

As the queen moves up in her egg laying, and she surely will move up if she can, a certain number of cells in the lower chamber will be vacated daily by emerging bees. These empty cells furnish the room that is ideal for the storing of surplus pollen. As the brood chambers are again re-

## Italian Package Bees & Queens For '49

3000 Packages for Spring Delivery at the following prices:

	1-24	25 and up
2-lb. package with young laying queen	\$3.75	\$3.50
3-lb. package with young laying queen	4.75	4.50
Extra queens (any number)	\$1.00 each	

SPECIAL—1000 4-frame nuclei for late April delivery. \$1.00 per package deposit books your order, balance ten days before shipment is made. We guarantee live delivery, a health certificate with each shipment and service you can depend on.

QUALITY DOES NOT COST—IT PAYS.

## THE WILBANKS APIARIES

Claxton,

Georgia

**PACKAGE BEES** Our package unit located at Sylvester, Georgia, is in better shape to serve our '49 customers than it has been in our 20 years' shipping experience. Most of our 2,600 colonies here are full of young bees and stores. We have some open dates in April and May.

BOOK YOURS NOW!

**QUEENS** We have employed one of the South's most experienced queen breeders. Our queen yards in central Florida and South Georgia insure shipment of your orders on dates desired. Queens mailed after Mar. 10th.

INSURE shipment of your orders on dates desired. Queens mailed after Mar. 10th.

PRICES:			
3-lb. package and queen, 1 to 10		55.00	
10 or more		4.75	Booster packages—
2-lb. package and queen (any number)		4.00	deduct price of
Queens, 1 to 10		1.25	queen.
10 or more		1.00	

## HYLAND APIARIES

Sylvester, Georgia

## A-B-J WANT ADS PRODUCE RESULTS

versed these pollen laden cells continue to increase and under ideal conditions are covered with honey and sealed over while in the upper position. If conditions are maintained on this ideal plane the queen will be gradually crowded out of most of the large brood nest that she had at the beginning of the spring season, and by the end of the honeyflow the colony finds itself ready for winter. From this we can see that the brood nest must contain at least twice as much room as will ever be occupied by brood. If it does not there will never be the opportunity to store the pollen and the honey to preserve it. As we have observed, pollen stored without a covering of honey will almost surely become mouldy over winter. It is then worse than useless for the bees cannot use it and must carry it out. In doing so they often ruin good combs. It can readily be seen that this is not the "clear brood nest" system so often recommended. While the clear brood nest system is nice to handle, and gets a maximum amount of the honey gatherer stored in the supers, it will not provide the large pollen reserve necessary for supplying an abundance of early bees the following spring. Just as the clear brood nest system supplies a minimum amount of room for pollen and is unnatural for that

reason, so the system of reversing a multiple brood nest supplies a maximum amount of room for pollen storage and goes Nature one better.

It is necessary that there be much more honey in the hive at all times than is needed to prevent the colony from starving. When stores begin to diminish the brood circle begins to shrink.

It is true that some do not shrink soon enough, and spring starvation is still the most common cause of winter loss. Not long before starvation of the colony is imminent the queen curtails egg laying, and brood is starved. Have you examined a colony in the early spring and found only sealed brood and eggs? It is common, and you doubtless have, but did you know why such a condition existed? The larvae are starving, likely from the lack of pollen, and although the queen continues to lay some the larvae are not permitted to develop. At the time the now sealed brood was in the larval state food was still present, but since then it has been exhausted and until conditions again permit the feeding of these larvae an ever increasing gap will exist and the potential colony is weakened for the season to come. These brood gaps often occur even after natural pollen is present in the field.

# All Around the Bee Yard

Just came from the Cook-Dupage meeting in Chicago, February 12, Lincoln's birthday. Bad weather, ice and rain. Between 200 and 250 people crowded the Club Room of the Art Institute on Michigan Avenue for a meeting lasting from 3:00 o'clock in the afternoon until 9:30 in the evening and they all stayed.

That is a masterly turn-out in any location. The entire great state of Illinois, with thousands of beekeepers, holding an annual meeting in November of each year in Springfield with 500 to 600 on the association roster cannot get over 10 to 20 per cent of the entire membership, let alone any significant total of the beekeepers of the state.

How to explain the phenomenal attendance and interest in the Chicago area. There are several explanations. There are many enthusiastic side-line beekeepers and they are all in a concentrated area. But foremost and above that, Cook-Dupage has a set of officers who know their stuff. President Baker and his Officers, all working together, know how to get a turnout. They know how to publicize it and they know how to have a meeting that will hold the interest and keep them coming back for more.

The present meeting is an example. Chicago being a central area, it is often possible to get worth-while speakers to come there for the day, especially a week-end. The meeting scheduled for 3:00 o'clock in the afternoon was put up in a different way than most meetings, which are tiresome and boring, consisting mainly of heavy speeches by smart guys. There were heavy speeches in this meeting, too, but they were so spread apart that there was keen interest all of the time. Three talks before dinner, a banquet (and what a banquet, turkey and all of the trimmings) right at the Art Institute. Then an evening meeting beginning at 7:30 with talks interspersed with moving pictures and lantern slides.

It was a three-ring circus and I can heartily recommend it to any association which wants to do a good job of peping things up and keeping their members on their toes and keeping the dues on the books.

We got a lot of interest from read-

## G. H. Cale

ers in the request in "All Around the Bee Yard" and in the "Postscript" for February asking readers to tell us the traits which they think important in the honeybee. There are so many replies that we hope to make one article out of it in the April number and all of the replies are obviously not yet in; they are still coming. Significantly almost everyone puts honey production as the number one requirement of a satisfactory honeybee. That is obvious especially with honey now selling at or below cost of production.

Have been getting letters from those who want to see something in the Journal in addition to "All Around the Bee Yard," particularly for beginners. As mentioned before, this department, "All Around the Bee Yard," was intended originally to be a beginner's page but it trailed off following the path of least resistance to become a sort of hit-and-miss comment on current problems and it often goes ahead of the beginner.

One letter worth mentioning is from William H. Kellett, of Dover, New Jersey. He says, "I have found 'All Around the Bee Yard' interesting but I would like to see something that would give the how to do it and when and what to do, to the beginner in sugar-coated doses; something with a primary appeal to those who are starting into beekeeping more or less blindly. Nowhere have I seen anything that tells what should be done each month. Perhaps a list of things to do each month might serve the purpose, but it occurs to me that by dressing it up as the diary of a beekeeper the same information could be covered and have an appeal both to new and experienced beekeepers.

"We have a definite obligation to the new beekeeper to see that he gets started right and that he has a chance to become successful without becoming discouraged."

The result of Mr. Kellett's suggestion is a department starting this month obviously for the beginner and with this slant that Mr. Kellett

suggested. Not a diary, and not necessarily things to do this month, but things to do which seem to be important to the beginner from our own point of view. We hope that you will like the dialogue style between the beekeeper and his young friend.

It is hard for a man with experience to get down to the beginner's point of view. The beginner naturally sees his approach into a strange but fascinating occupation from the viewpoint of little knowledge and much to learn. The experienced man forgets all of the little things that at one time seemed to him important; things he now takes for granted, things that have become second nature. He never thinks about them any more than a good pianist thinks about the fundamentals in the long road which has made him a successful musician. I have seen a musician whose fingers fly over keys and whose thoughts and attentions are elsewhere, looking about and enjoying himself. How in goodness' sake does he teach those fingers to obey an almost subconscious command which brings out all there is in a piano! And so the master beekeeper automatically does many things and, when he tries to tell a beginner, he, himself, is lost in a fog of "secure" experience.

A subscriber writes commenting on the remark that I was looking out of the window and, even though there was snow and a winter scene to greet the eye, my feeling was that up to then the bees had done well. He says that instead of looking out the window and sitting in a chair I should be concerned with the problem of how the beekeeper is going to go on keeping bees when honey from which he has to support the venture is going under the hammer for less than it is costing him to produce it.

It may be interesting to know that everything that can be done along this line is being done. That the new Federation is making itself the champion of the beekeeper in respect to his greatest problem. We hope that the results will be something we can all accept with pride.

# TANQUARY'S ITALIAN BEES AND QUEENS FOR 1949

ORDERS NEVER TOO LARGE OR TOO SMALL

We figure that our prices are in line with present conditions and we urge you to check your equipment and place your order now for your packages and queens. Satisfaction guaranteed.

• ORDER EARLY •

Quantity	Queens	2-lb. Pkgs.	3-lb. Pkgs.	4-lb. Pkgs.	5-lb. Pkgs.
1 to 24	\$1.25	\$4.00	\$5.10	\$6.20	\$7.25
25 to 99	1.15	3.75	4.80	5.80	6.85
100-up	1.00	3.50	4.50	5.50	6.50

TESTED \$2.00 each

Breeder Queens shipped with 2-lb. Bees, Express Collect  
\$8.00 each

Price of queenless packages deduct price of queen.

Queens Postpaid—Packages bees F. O. B.  
Health Certificate with each shipment.

## TANQUARY HONEY FARMS, Inc. LENA, SOUTH CAROLINA

WESTERN UNION, LENA, S. C.

TELEPHONE: ESTILL, S. C. 109

# Previews of Coming Events

## Missouri Meeting and Short Course Columbia—March 14-15

A meeting of the Missouri State Association will be held at Columbia at the University of Missouri on March 14, 1:30 P. M. There will be the annual business meeting, election of officers, adoption of new bylaws. On March 15, there will be a short course starting at 10:00 in the morning, speakers: Carl Killion, Paris, Illinois—Comb Honey Production; J. C. Dods, Kansas City, Missouri—Extracted Honey Production; Leonard Robins, Mt. Sterling, Illinois—Co-operative Marketing; F. B. Paddock, Ames, Iowa—Legume Pollination by Bees; Roy A. Grout and Glenn O. Jones—Aims and Objectives of the Beekeeping Federation.

Carl Kalthoff, Missouri.

## Palmetto State (S. C.) Columbia March 16

The Palmetto State Beekeepers will have their spring meeting March 16 in Columbia, South Carolina, at the Jefferson Hotel. The program has not been completed, but we are planning to have one of the best programs that the state meeting has ever had. We have a number of outstanding out-of-state speakers. Any beekeepers in this neighborhood at that time have a wholehearted welcome.

## Berks County (Pa.) March 17

On March 17, The Berks County Association will hold its spring meeting at Reed and Washington Streets, Reading, 8:00 o'clock, Y. M. C. A. Building. Mr. Clark from Pennsylvania State College will give an interesting talk on management.

Henry F. Phillips, Sec'y-Treas.

## Michiana (Ind.)—March 20

We are holding another meeting on March 20, 1:30 P. M. There will be an election of officers. It will be an old-fashioned meeting where everyone will have a chance to air his views. We also expect moving pictures on bees. The meeting will be in the Y. M. C. A.

Lester E. Bendt, Secretary.

## Weschester County (N. Y.) New Rochelle, March 20

The Westchester County Beekeepers' Association will hold its regular monthly meeting at 2:30 P. M. on Sunday, March 20, 1949, at the Odd Fellows Hall, 20 Lockwood Avenue, New Rochelle, N. Y.

Guest speaker following the meeting will be Mr. A. C. Gould, New York State bee inspector. Instructional movies will also be shown, and refreshments will be served. Visitors are always welcome.

B. F. Miller, Publicity.

## Virginia Association—Lynchburg March 23

The annual meeting of the Virginia Association will be in Lynchburg, March 23, Chamber of Commerce Room, Allied Arts Building.

Henry W. Weatherford,  
Sec'y-Treas.

## Farm and Home Week—March 22-25 Ohio State University

The annual Farm and Home Week at the Ohio State University has been scheduled for March 22-25. The Beekeepers' Short Course will be held on March 22 and 23. A part of the program will be devoted to the commemoration of the 75th anniversary of the establishment of the College of Agriculture.

On the first day, March 22, a portion of the Beekeepers' Short Course will be devoted to the subject of "Bees in Relation to Legume Seed Production." The subject-matter will be discussed by Dr. Alan Woodrow and Dr. W. E. Dunham connected with the Federal Legume Research Laboratory, Ohio State University, and Prof. G. F. Townsend, Ontario Agricultural College, Guelph, Canada, and Dale C. Williams, chairman—Ohio Production and Marketing Administration committee.

The program on March 23 will pertain to "beekeeping problems" with panel discussions under the leadership of Professor Townsend; Dr. Robert D. Patton, Professor of Economics Ohio State University, and a beekeeper by avocation; M. J. Deyell, editor, Gleanings in Bee Culture; S. E. Bailey, state apiarist, and C. A. Reese, extension apiarist.

An invitation is extended to all beekeepers not only in Ohio but in adjoining states to attend our Short Course—March 22 and 23, 1949.

## North Jersey Bergen County Courthouse March 24

The North Jersey Association will start its third year as the most outstanding beekeepers organization in the state with its anniversary meeting in Room H of the Bergen County Court House, Thursday, March 24 at 8:30 P. M. The meeting will be in court-room style with judge, attorneys, defendants and plaintiffs, all in mock fashion.

The organization has inducted nine new members since the first of the year and hopes to fill its quota of 75 before October. Beautiful gold membership plaques will be awarded to members who bring in the largest number of new members.

Rose Leswing, Cor. Secretary.

## Macon County (Ill.) March 27 — April 24

Macon County Beekeepers Association will hold their regular monthly meeting at 2:30 P. M. Sunday, March 27 at the honey house of Ira Bowers, five miles east of Decatur on State Route No. 36.

They will also have a regular monthly meeting at 2:30 P. M. Sunday, April 24 in the home of J. W. Head, one mile north of Mt. Zion on State Route No. 121.

J. W. Head, President.

## Officers of Washington State

At the meeting November 29, E. J. Stanton, Star Route, Wapato, was elected president; S. R. McAlpine, Orchards, vice-president; C. A. Dark, Spokane, secretary-treasurer.

## Northeastern Washington Elects

On December 15th the following officers of the Northeastern Washington Association were elected: President, Arthur D. Rice, Liberty Lake; Vice-President Walter L. Peterson, Jr., Veradale; Secretary-Treasurer, C. A. Dark, Spokane.

This local association meets on the third Wednesday of each month.

C. A. Dark, Sec'y-Treas.

1949

**ITALIAN PKG. BEES & QUEENS**

2-lb. with queen \$4.00  
3-lb. with queen 5.00

**LOHMAN BEE CO.**  
Rt. No. 1, Box 340C Loomis, Calif.

**Canadian Bee Journal**

Canadian beekeepers have much in common with their neighbors in the U. S. If you are interested in bee activities "North of the Border," send us your subscription NOW. Subscription price, \$1.25 per year in U. S. A.

**CANADIAN BEE JOURNAL**

54 Bloor St. West, Toronto 5, Ontario

**HIGH GRADE ITALIAN  
Package Bees & Queens**

2-lb. pkgs. with queen \$3.75; 3-lb. pkgs. with queen \$4.75; 4-lb. pkgs. with queen \$5.75. Guaranteed full weight and prompt shipping dates.

**E. J. COCO, Hamburg, La.**

**ELK MOUNTAIN POLLEN SUPPLEMENT**—The Blended Bee Food Vitamin Enriched substitute for Nature's own Pollen. Send \$1.00 for a postpaid trial bag with feeding instructions.

**ELK MOUNTAIN PRODUCTS**  
P. O. Box 233 Carbondale, Pennsylvania

**Northern CALIFORNIA****Package Bees—Italian Queens**

Nuclei made to order. Prices are about 10% less than last year with the same high quality and service.

**D. N. BROWN APIARIES**  
BOX 2 GLENN, CALIF.

**Modern Beekeeping**

The picture magazine of beekeeping. We show you with pictures how to do the job easier, quicker, and better. Special Inventor's page.

1 yr. \$1.50; 2 yrs. \$2.50; 3 yrs. \$3.25

**MODERN BEEKEEPING**  
PADUCAH, KENTUCKY

**3-BANDED ITALIAN BEES & QUEENS**

1-24	25-up
2-lb. pkg. with queen \$3.75	\$3.50
3-lb. pkg. with queen 4.75	4.50
Extra queens \$1.25 each	

**J. P. CORONA**

BOX 124 KENNER, LOUISIANA

**LIFE OF LANGSTROTH**

By

**FLORENCE NAILE**

A complete biography of the inventor of the movable frame hive.

Cloth bound.  
215 pages.

\$2.50

**American Bee Journal**  
Hamilton, Illinois



**YOUR CONFIDENCE IN US, PLUS OUR FRIENDLY SERVICE TO YOU**  
has caused us in the past 20 years to be one of the leading shippers. Try us again this year. Our packages are overweight and our queens are caged in our own yards as pictured above.

	2-lbs.	3-lbs.	4-lbs.	Queens
1- 9	\$3.75	\$4.70	\$5.50	\$ .95 each
10-24	3.65	4.60	5.40	.85 each
25-49	3.55	4.50	5.30	
50-up	3.50	4.45	5.25	

**CENTRAL LOUISIANA APIARIES**

Marksville, Louisiana

**COMB HONEY WANTED**

in the frame—TRUCK LOAD—Prefer Texas ORANGE,  
Huajillo or Clover. Write for particulars.

**A. W. BULAY**

Dayton, Texas

**A NEW TYPE QUEEN BEE**

Six generations of controlled mating and careful research work has gone into the production of these northern bred, all-Italian hybrids. Progeny tested for honey production, temper, resistance to foulbrood, and other valuable qualities.  
WRITE FOR PRICES.

**J. M. CUTTS & SONS**

Chipley, Florida

**Fancy Comb Honey Production and Pollen Supplements**

**COMB HONEY QUEENS** (Queens that have been bred especially for comb honey for over twenty-five years). Comb Honey Equipment, Soy Flour, Pollen Traps, Brewers' Yeast, and Pre-Mix Supplement.

**KILLION & SONS APIARIES**

Paris, Illinois

**YELLOW BEES**

Young, gentle, vigorous Italian bees, 99% drone free. Every package headed by a golden to lightly tipped queen. Wing clipped if desired. 10% of queens in packages sent free as extras. Book your order now and choose any shipping date. Better prices on larger orders. PRICES:

2-lbs. with queen	\$3.75
3-lbs. with queen	\$4.75
Queens, 1 to 4	(each) 1.10
Queens, 5 or more	(each) 1.00

Nuclei packages—4 frames of brood, pollen and honey with two pound bees and queen shipped in cypress supers.

2 or 4 (each) \$6.25 6 or more (each) \$6.00

Guaranteed live delivery, health certificate. Over weight with bees.

**NEAL'S APIARIES**

N. J. PLAUCHE, Prop.

Hamburg, La.

**UNTESTED QUEENS**

1 to 25 \$1.25

25 to 50 1.20

50 up 1.15

Tested queens 2.00

**Bessemer Apiaries, 4300 A Raleigh Rd., Greensboro, N. C.**

# The Postscript

Nature has a way of compensating climatic variations by making up in one way what is lacking in another. In Alaska, summer is short but the longer day enables plants to make faster growth because of more hours of sunshine. In the Alaska Farmer we read of cabbage weighing 42 pounds, turnips 21 pounds, celery 6 pounds with stalks three feet high and pumpkins weighing 63 pounds.

In Iowa we have a rich soil but severe winter climate. When visiting Florida I have wondered at the poverty of their soil while enjoying the world's best climate. You can't have everything. If Iowa had Florida's climate or Florida had Iowa's soil the rest of the world would be at a great disadvantage.

A New York reader writes that he has a farm abandoned for more than twenty years. He asks advice as to what plants will grow on uncultivated acid soil at an elevation of 1800 feet. My first suggestion is bird's-foot trefoil, since that plant has done so well in New York. Wild marjoram (*Origanum vulgare*), wild thyme (*Thymus serpyllum*), and meadow sage (*Salvia pratense*) are others which I am confident will succeed. Marjoram and thyme have both become established in some New York neighborhoods much to the advantage of local bee-men. Meadow sage is new but promising. A tall growing plant of weedy appearance but by no means weedy in habit, is the golden honey plant (*Actinomeris alternifolia*), one of the best for such situations in the Midwest and may do as well for New York.

There is a great deal of interest in the bird's-foot trefoil but little information as to where it can be depended upon to yield nectar freely. There are indications that in some locations it yields mostly pollen. Some of our best sources of honey yield but little on certain soils. We are anxious to hear from as many bee-men as possible who are within reach of bird's-foot trefoil. Prof. E. J. Dyce reports that in some New York neighborhoods it apparently yields but little honey.

## Frank C. Pellett

Dr. T. E. Gurtner, of South Bellingham, Washington, is engaged in the growing of medicinal plants which are also good honey plants. The purpose of profiting from honey production along with the sale of plant material looks like a good combination. Several plants for which there is a steady demand in the drug trade are good sources of honey.

In English cities there is a great amount of bloom from such early flowering trees as cherries, crabs, and other similar varieties. With strong colonies it should be possible to get considerable honey from this early bloom. H. Malcolm Fraser tells of a recent discussion as to best way to make the most of this flow. One suggestion was to set the hives in pairs and when the flow started remove one hive of each pair to a distance and thus double the field force of the remaining colony. Perhaps this plan is worth a trial in some of the extensive orchard districts of this country. Occasionally we hear of surplus honey from fruit bloom and from dandelions. It takes strong colonies to get it.

A. G. Woodman, of Grand Rapids, Michigan, comes up with a new idea for advertising honey. It is a sign to be mounted over the rear license plate of the car and reads, "FOR GOODNESS SAKE EAT HONEY." The sign is of metal and should last for a long time. They can be had from Woodman for 45 cents postpaid.

I note with much interest the fact that the garden pea is listed as a honey plant in a publication by the Montreal Botanical Garden. I have also had reports of honey from garden peas from Quebec. In all my life I do not remember ever having seen a honeybee on a pea blossom. Here is another example of the great difference in behavior of plants in nectar secretion under varying

climatic conditions. Some of our finest honey plants are reported as failing to attract the bees in other regions.

Mrs. Grace Carmody, of Trenton, Nebraska, sends some beauty hints clipped from current newspapers in which honey is recommended to soften dry skin. If that idea becomes popular with the girls we will sure have to fill those empty hives in order to produce enough honey to meet the demand. They may eat their cakes without honey if necessary but never will they neglect the beauty hints.

P. C. Pearson, of the Dominion Experimental Station at Summerland, British Columbia, tells an interesting story of his observations of bees pursuing kingbirds when on the wing. The bees "dive-bombed" the birds in apparent effort to sting but he could not see that the birds paid any attention to the insects as they returned to their perches quite unconcerned. He wonders whether others have observed similar incidents.

Bees are likely to attack any moving object when they become aroused whether it be a bird on the wing, an animal moving about, or a person who happens to be near.

The failure of the white Dutch clover was not felt for long because of the spread of sweet clover. Our biggest crops came during the sweet clover era. Not only did we have better bees but sweet clover yielded nectar as no other plant had done. Sweet clover covered such a wide area and produced such crops as to bring a revolution in beekeeping. Side line beekeeping gave place to a full time specialty with anything less than 1,000 colonies regarded as a small outfit.

The production of from a quarter to a half million pounds of honey in a season was no longer regarded as unusual. In the meantime the small apiaries had largely disappeared from the farms. Farmers were also coming to be specialists.

# HONEY GIRL APIARIES

Package BEES and QUEENS When You Want Them



## ITALIAN BEES AND QUEENS

	1-24	25-49	50-99	100-up
2-lb. package with queens	\$4.50	\$4.25	\$4.00	\$3.75
3-lb. package with queens	5.25	5.00	4.75	4.50
4-lb. package with queens	6.00	5.75	5.50	5.25
5-lb. package with queens	6.75	6.50	6.25	6.00

For price of queenless packages, deduct the price of the queens

**W. E. CASE, Proprietor : Moreauville, Louisiana**

**SUPER FOUNDATION  
Dadant and Sons, Inc.  
Hamilton, Illinois**

The heart of comb honey is foundation. The biting quality of the honey, that delicate center taste is foundation. It must literally become a part of the honey, so tender, a touch of the tongue will crumble it; yet be so strong that bees work it out quickly and easily. Dadant's Surplus Foundation, fragrant and pure, thin and sweet, blends naturally with your finest comb honey, that your market grades are better and sales are quicker.

## ITALIAN PACKAGE BEES AND QUEENS

The spring season is at hand. Book your order now for our fine THREE-BANDED ITALIAN BEES AND QUEENS. Three years of selective and line breeding, we developed a strain we believe equal to any for its productiveness, hardiness and vitality. Health certificate, safe, reliable dependable service, live arrival guaranteed.

2-lb. package with queen	\$3.50	QUEENS
3-lb. package with queen	4.50	
4-lb. package with queen	5.50	\$1.25
5-lb. package with queen	6.50	

**B. J. BORDELON APIARIES**

**Moreauville, Louisiana**

Realizing you are a business man with no time for reading long drawn-out ads

We  
Will  
Skip  
Down  
To

Here—  
Leather-Colored  
Queens \$1.25



2 pounds  
of bees \$4.00

For each additional  
pound \$1.00



**O. K. ANDERSON & SON**  
Box 193, Coffee Springs, Alabama, U. S. A.

## Knight's

### THREE-BANDED LEATHER COLORED ITALIAN BEES

Queens	2-Lb. Pkg.	3-Lb. Pkg.	4-Lb. Pkg.	5-Lb. Pkg.
1 to 24...\$1.40	\$4.50	\$5.60	\$6.70	\$7.80
25 to 99...1.30	4.25	5.30	6.35	7.40
100 up...1.20	4.00	5.00	6.00	7.00

The above prices include the queen with each package. For queenless package deduct the price of the queen.

Prompt service, full weight packages, young laying queens, safe arrival and your satisfaction guaranteed.

No Charge for Clipping

**JOHN T. KNIGHT**

**Hayneville, Alabama**

**Queens****SUNKIST  
Italian****Packages**

**MARCH PACKAGES A SPECIALTY.** Plenty openings in May. Guaranteed live delivery—Satisfaction—Quality. 10% books your order, balance 10 days before shipping.

	2-lb.	3-lb.	4-lb.	5-lb.	Queens
1-25	\$3.75	\$4.75	\$5.75	\$6.75	\$1.15
25-50	3.50	4.50	5.50	6.50	1.10
50-up	3.25	4.25	5.25	6.25	1.00

**SUNKIST BEE COMPANY****Convent, La.****GASPARD'S Quality Italian Queens and Package Bees**

We are booking orders for spring 1949 delivery. Only 20% with order, balance 10 days before shipping time. We guarantee live delivery and health certificate accompanies each shipment. Prices as follows:

	1-49	50-up
2-lb. package with queen	\$3.75	\$3.50
3-lb. package with queen	4.75	4.50
4-lb. package with queen	5.75	5.50
5-lb. package with queen	6.75	6.50
Queens	\$1.25	

**GASPARD BEE CO.****Hessmer, Louisiana****Packages Headed by Those Good Weaver Queens****ITALIANS****CAUCASIANS**

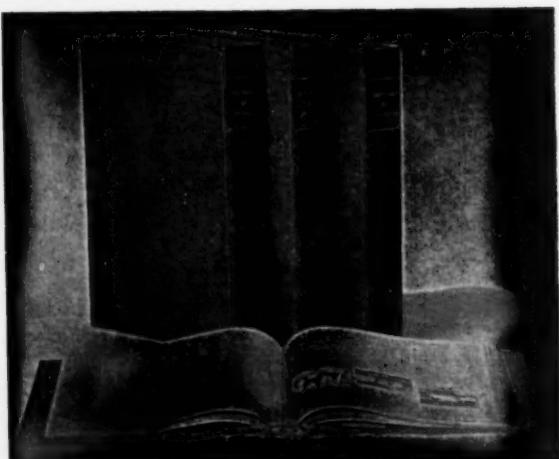
PRICES	2-lb. Pkgs.	3-lb. Pkgs.	Extra Queens
1 to 24	\$4.50	\$5.50	\$1.40
25 to 98	4.25	5.25	1.30
99 and up	4.00	5.00	1.20

We have a few open dates in April, plenty of dates in May.

**WEAVER APIARIES****Navasota, Texas****Brazos Valley Apiaries  
Cameron, Texas****Bees and Queens****Brazos Valley Apiaries  
Cameron, Texas****ITALIAN OR CAUCASIAN**

	1 to 5	6 or more
2-lb. bees with young queen	\$4.00 each	\$3.75 each
3-lb. bees with young queen	5.00 each	4.75 each

Over a quarter of a century in the same place, in the same business is my record.  
My motto: I expect to do business with you again.

**H. E. GRAHAM, Cameron, Texas**

**Keep Permanently  
Your Files of  
THE AMERICAN BEE  
JOURNAL**

Here is a cloth binder that will hold a full year of your journals. Looks just like a book and looks good in bookcase or on the table.

Each copy snaps in easily when you are through with it. So as the journals come in you can file them readily. Get two. One for this year and one for the year to come. Blue cloth with name stamped in gold.

We guarantee to refund your money if not satisfied. Price postpaid in U. S. A. \$1.50.

**American Bee Journal**  
Hamilton, Illinois

## Langstroth Was One Hundred Years Ahead of His Time

(Continued from page 127)

entiate between radiation, convection and conduction.

In the hive the heat losses from the cluster involve a complex heat transfer process consisting of varying amounts of radiation to cooler surfaces, convection transfer to cooler air, condensation of the water vapor and conduction transfer to cooler parts. Fortunately for the average beekeeper, a wide range of environmental conditions can be maintained in which varying percentages of radiation, convection and conduction will be satisfactory.

Using a rough approximation, 20% or less of heat loss in the cluster is by convection transfer ("convection currents") to the cooler air; 10% or less by conduction transfer to cooler parts; but the most important loss is that of 70% or more by radiation from the surface of the cluster to the inside cooler surface of the hive (separate from the miscalled "radiation" or convection transfer to cooler air).

Langstroth knew that this loss from the surface of the cluster to the inside surface of the hive irrespective of air temperature was the important one. He knew that heat always flows from a warm surface to a cold surface irrespective of air temperature, that if the heat from the winter sun is permitted to be absorbed by a natural black body and is not prevented from being conducted through the walls of the hive by packing, but is permitted to be transferred from the outside of the hive to the inside surface, the largest single loss of cluster heat would be eliminated and the cluster could move to fresh stores at frequent intervals. He knew too, that bees did not work themselves to death in zero weather but were at deep rest.

That bees partially regulate heat loss from the cluster by forming a thick rind and by increasing and decreasing the area of the cluster surface has been known for a long time. What has been overlooked is that the overlapped wings of the bees in the cluster form a transparent surface which greatly reduces the heat loss by radiation from the surface of the cluster to the colder surface of the hive, also that by the rapid shutter-like movements of their overlapped wings the bees are taking in

fresh air and allowing the used-up air to rise from the cluster.

The air temperature in the hive is of minor consideration. The two most important conditions which affect the bees in cluster are the degree of relative humidity (the amount of water in the air) and the temperature of the inside surface of the hive. If you have a hive open at the top you maintain a dry humidity because the wet air passes out.

As to the effect of radiation, if the surface cluster temperature and the inside hive surface temperature are the same there will be no loss of heat by radiation. If the cluster surface temperature is higher than the inside hive surface temperature there will be a loss of heat from the cluster to the cold surface. Then the bees reduce the area of the cluster until the heat loss by radiation is normal. Reversing this when the cluster radiation is normal with a cluster surface temperature, say, of 46 degrees and the heat from the sun raises the inside hive surface temperature above 46, the flow of heat would be from the inner surface of the hive to the colder surface of the cluster. Then the surface area of the cluster will be increased and the bees will maintain normal heat loss or comfort balance. It is necessary to remember that there is a difference between the chemical production of heat and the muscular production of heat and that bees in cluster are at rest.

It is evident, therefore, that bees can stand considerable abuse and many beekeepers waste a lot of labor and money to make it harder for bees to produce a crop of honey, also that adequate ventilation to maintain a dry humidity is essential and that artificial heat will find a very small place in honey production. Langstroth told us that 100 years ago.

Virginia.

### DIXIELAND'S LEATHER-COLORED ITALIAN BEES AND QUEENS

Write for prices and booking dates

**DIXIELAND APIARIES**  
GREENVILLE, ALABAMA

Prices to May 20th	Queens	2-lb. Pkg.	3-lb. Pkg.	4-lb. Pkg.	5-lb. Pkg.
1-24	\$1.40	\$4.50	\$5.60	\$6.70	\$7.80
25-99	1.30	4.25	5.30	6.35	7.40
100-up	1.20	4.00	5.00	6.00	7.00

Sumterville, Ala.

### WANT TO INCREASE YOUR HONEY CROP?

Use our LEATHER ITALIAN BEES and QUEENS

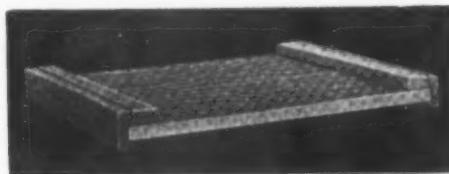
Queens	2-lb.	3-lb.	4-lb.	All package bees shipped ex- press collect unless otherwise specified. We guarantee live ar- rival.
1-24	\$1.30	\$4.25	\$5.30	\$6.35
25-99	1.20	4.00	5.00	6.00
100-up	1.10	3.75	4.75	5.65

EVANGELINE BEE CO.  
BREAUX BRIDGE, LOUISIANA

## Superior Honey Company

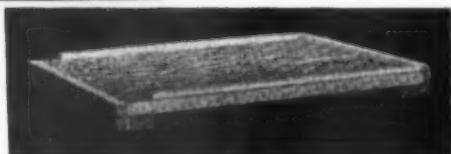
offers one piece Lindermanized Cedar or Redwood covers and bottoms complete with 4 soft Western Pine cleats, Wt. 6 lbs. each. Lots of 5, \$4.50, F.O.B. shipping point, Madera,

California.



COVER

Send orders to  
our nearest office



BOTTOM

"When you put a roof on your house you use Cedar shingles—When you think of wood everlasting you think of Redwood." Be practical in selecting your covers and bottoms.

## SUPERIOR HONEY CO.

Ogden, Utah; Los Angeles, California; Denver, Colorado;  
Phoenix, Arizona; Idaho Falls, Idaho; Madera, California

### ITALIANS AND CAUCASIANS

Bred to Italian Drones

Our leather-colored Italians are bred for their honey producing and good wintering qualities. For those who prefer the Caucasians we breed them in separate queen yards. In 1948 we shipped package bees to Fairbanks, Alaska and our customer says they arrived in good condition. We guarantee safe arrival.

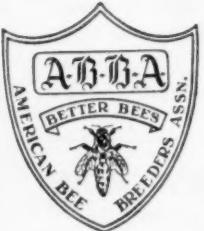


2-lb. with queen	25 and up
53.75	53.50
4.75	4.50
5.75	5.50

Extra queens, any number, \$1.00 each.

20% down books your order, balance 10 days before shipping.

**LOUIS L. COUCH** Pineville, Louisiana  
"The Village Beekeeper"



## BETTER BRED QUEENS THREE-BANDED ITALIANS

It will pay you to know who is who when you buy your bees this year. A good idea would be to write the bee journals and get their recommendation, as to the capacity, responsibility and service you will get. We insist that you do this if you are not already one of our many satisfied customers. We are one of Alabama's oldest and largest shippers. Our locality affords plenty of bees. Shipments starting first week in April. Send us your early orders.

	2-lb.	3-lb.
1 to 25	\$4.00	\$5.00
25 to 100	3.75	4.75
100 or more	3.50	4.50

Queens, any quantity \$1.10 each.

**CALVERT APIARIES Calvert, Alabama**

## PLANT'S PRODUCTIVE VIGOROUS ITALIANS GENTLE AND EASY TO HANDLE

In producing honey in the North we learned what should go into good packages and queens before coming South to raise them.

Now as for years our first consideration is to give the quality and service we would like to receive if we were still on the receiving end.

	1 to 24	25 to 99	100 or more
2-lb. package with queen	\$4.50	\$4.25	\$4.00
3-lb. package with queen	5.60	5.30	5.00
4-lb. package with queen	6.70	6.35	6.00
5-lb. package with queen	7.80	7.40	7.00
Extra queens	1.40	1.30	1.20

For queenless packages, deduct price of queen

Never any disease in our queen or package yards. Health certificate with each shipment. Safe, full weight arrival. Satisfaction guaranteed.

**W. E. PLANT  
Rt. 2, Hattiesburg, Mississippi**

## PACKAGE BEES—QUEENS

Now booking orders for this high producing strain of LEATHER COLORED ITALIANS. Queens are reared direct from the egg (not grafted or disturbed), produces more vigorous queens, less supersEDURE. Order early for choice dates. All packages are young bees and over-weight.

We start shipping March 15th. 20% books you.

	1-9	10-49	50-up
Queens	\$1.30	\$1.25	\$1.20
2-lb. packages with queens	4.50	4.30	4.10
3-lb. packages with queens	5.60	5.40	5.20

For queenless packages deduct price of queen.

**NOVINGER APIARIES**

**Oxford, Florida**

**Renew Your Subscription Now To A-B-J**

## John Asks Questions

(Continued from page 131)

"When do you think I should send the order for the bees?"

"Soon. I can tell you the results I have had in buying bees. Most of the breeders have done pretty well for me. When you get ready, let me know and we will go into that. I could give you some colonies out of mine all ready to go but it will cost you more in the long run and you take some chance on bee disease, although I seldom have any. If you buy bees already in the hives, particularly from a stranger, you take a big chance in this respect."

"Well, thanks, Mr. Miller. I hope you don't mind my coming over and asking these fool questions. It kind of scares me when I think about starting. I am afraid of getting stung too. I shy like a jack rabbit whenever a bee sings around my ears."

The old Beemaster laughed heartily at this. "I did that once myself. I worked for a man in New York State when I was a boy. Went out to the beeyard one day trying to look brave, but was self-conscious. Every bee made me shiver. I had on low black shoes and black socks. I got more stings around my ankles than I care to remember. Soon I was dancing up and down and talking real profane when I heard a laugh and there was my employer having a great time at my expense. He told me to put on a decent pair of high shoes with white stockings and tuck my pant legs inside the stockings. Just to forget about my city doodads. Proper dress is one of the things that takes a lot of timidity out of you and you will not get nearly as many stings, unless the bees are cross by nature."

"Well, again thanks, and so long for now," said John, putting on his overcoat. "I'll toddle along and be reading those books."

"Okay John, come over any time."

As the door closed, John could hear the receding tap, tap of the old man's hammer as he slowly walked home through the star-draped night, full of dreams for his future in bee-keeping.

## Missouri Bulletin

Circular 467 of the University of Missouri is entitled "Using Sugar, Honey, Sorghum, and other Sirups." It is written by Flora L. Carl and Letha O. Knight, and contains 12 pages, mostly about honey. Obtainable at Columbia, Missouri.

## YELLOW ITALIANS

**AT \$3.75 A PACKAGE**

Now is the time to place your order (large or small) for your share of our prolific strain of large yellow bees and queens. As gentle as bees get, good honey gatherers and pollinators. Live delivery and health certificate guaranteed with each shipment. 10% reserves shipping date. No C.O.D. accepted. Young untested queens \$1.00 Postpaid May 15th and after.

With young queen	2-lb.	3-lb.
1 to 24 (each)	\$4.00	\$5.00
25 to 49 (each)	3.90	4.90
50 up	3.75	4.75

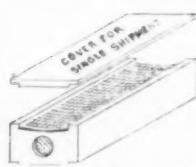
**PLAUCHE BEE FARM**  
HAMBURG, LOUISIANA

## PINARDS

**Queen Bee  
Cages**

**A. B. PINARD**  
Manufacturer

1794 Hicks Ave.  
San Jose, California



### MORE THAN A QUARTER OF A CENTURY WITH CAUCASIAN BEES

and a leader with good stock for more than 20 years. Our bees possess two good traits of which none of us are divided about—Gentleness and good honey gatherers. Book your orders now for package bees and queens for future delivery. Prices guaranteed to be in line. No disease.

**BOLLING BEE CO.**  
BOLLING, ALABAMA

## Northern California

**IMPROVED STRAIN LEATHER COLORED ITALIAN PACKAGE BEES & QUEENS**

2-lb. package with queen \$4.00; 3-lb. package with queen \$5.00; Queens each \$1.25. Add 10% on orders less than 25 packages.

**OTTO SANFORD**  
RT. 1, BOX 645, RED BLUFF, CALIF.

## The HONEY SALESMAN

FALFA, COLORADO

A monthly, 16 letter-size pages Marketing information and a service to aid bulk honey sales. \$2.00 a year. Free sample copies.

**KOEHNEN'S  
Package Bees and Queens  
For Quality and Service  
KOEHNEN'S APIARIES  
GLENN, CALIFORNIA**

## Langes Quality Italian Queens

1949 PRICES

1-50, \$1.30; 50 and up, \$1.20—Queens reared under ideal conditions and sold under guarantee of satisfaction and safe arrival. 10% deposit books your order and reserves shipping dates. We ship Leather colored Italians only.

**LANGE APIARIES**  
Rt. 2, Box 23-W Mission, Texas

— Advertise in the A-B-J —

## ITALIAN QUEENS . . . BEES

Line bred since 1927. Queens raised from stock of 200 to 300 lbs. after pulling bees all spring up into July. Queens mated to drones from similar selection. Give me your orders early to assure your preferred shipping date.

2-lb. bees with queen	\$4.50
3-lb. bees with queen	5.50
Queens	1.35

4-frame nucs 2 to hive bodies \$7.00 each, you furnish body. Health certificate with all shipments.

**EL DORADO, ARKANSAS  
AFTER MARCH 1ST GOULD, ARKANSAS**

**HOMER W. RICHARD**

## LIFETIME ALUMINUM BEE HIVE!

(Pat. Pend.)



**Order Now**

for

**Spring  
Delivery**

**ONLY**

**\$8.95**

**POSTPAID  
ANYWHERE IN  
THE U. S.**

**P. O. BOX 878  
ATLANTA, GA.**

## ALUMINUM HIVES CO.



Lest you forget the good rule to go by—Buy your bees and queens from Alabama Apiaries

2-lb. packages with queens, 1 to 25, \$4.50; 26 up, \$4.00

3-lb. packages with queens, 1 to 25, 5.50; 26 up, 5.00

**ALABAMA APIARIES**

**Uriah, Alabama**

## BETTER BRED QUEENS OVER-WEIGHT PACKAGES YOUNG BEES

### TWO FAST TRAINS DAILY

Frisco R. R. with direct connections to St. Louis and North-West. Southern R. R. with direct connections to Cincinnati, Chicago, Detroit and North-East.

You get your bees quicker this way. Our bees have done most of our advertising for us. Satisfied customers have built our business from 400 packages in 1939 to 5,000 in 1948. Try them yourself and be convinced that there are no BETTER BEES being produced and shipped. We spare no expense to produce BETTER BEES and QUEENS. We use only new light weight cages and furnish health certificate with each shipment.

Order direct from this ad to save time.

**NO ORDER TOO LARGE OR TOO SMALL TO BE APPRECIATED.**

	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1-24	\$1.40	\$4.50	\$5.60	\$6.70	\$7.80
25-99	1.30	4.25	5.30	6.35	7.40
100-up	1.20	4.00	5.00	6.00	7.00

We are offering 4 frame nuclei, shipped in 10 frame hive bodies top and bottom screened. In multiples of two's. Write for prices and shipping dates.

**WE HAVE NEVER HAD ANY DISEASE IN ANY OF OUR YARDS**

**C. W. BAKER, P. O. Sumterville, Ala.  
Telephone 2546 Livingston Western Union, Livingston, Ala.**

# Crop and Market

## Honey on Hand

The percentage of honey on hand throughout the eastern sections and over the entire South has been reduced to minimum quantities, with the exception perhaps of some amber honey in Texas, Alabama and Florida, and the amount beekeepers are holding to supply their regular customers' needs.

The central western areas, having had a short crop, now have comparatively little on hand, but as we approach the plains states and into the intermountain territory, the amount still remaining increases somewhat. Apparently the cooperatives are going to have difficulty in moving all of their members' honey they have on hand, as, in order not to cause a reduction in prices, they are feeding it into the distribution channels gradually. In some sections of California there is a considerable amount on hand, mostly amber.

However, the Canadian provinces probably are situated a little more disadvantageously than many parts of the United States. This is perhaps partly due to the fact that their price has remained high, at least up until the present, and has been sustained at these levels by the cooperatives who control a considerable portion of the honey of the chief producing localities. Here we hear of from 35 to 50 per cent of the 1948 crop remaining on hand as of February 1, with little possibility of export demand, at least from the British Isles.

## Will Honey Move?

Throughout the northeastern areas, the Southeast, and pretty well across the entire South, the reports are that honey will probably all move before the new crop is available. This, however, does not include stocks of buckwheat honey in New York which apparently the domestic demand has not been able to care for.

As we go farther west, we find more question as to whether all honey will move ahead of the new crop. Government reports show that on December 1 about 70,000,000 pounds still remained to be sold, which was the highest in several years. However, concentrated effort on selling, we believe, was postponed until after the holidays, and the movement has been quite considerable since that

## M. G. Dadant

time. Apparently there will be honey left on hand in isolated localities and in the hands of the cooperatives to a limited extent when the new crop develops.

### Jobbing Prices

We get a wide range on jobbing prices. Reports are all the way from 7 to 11 cents for amber honey, most of them being around 8 to 8½ cents in 50-pound cans, and progressively lower as we move from east to west.

Most reports on white honey give a price of 10, 10½, and 11 cents. However, some reports range as low as 8½ cents and one or two as high as 12 cents. The lower prices undoubtedly reflect the necessity of selling on the part of some producers who are not going to wait until the packers are needing more honey. In other words, there are distressed lots which are moving at low prices, but the bulk of good white honey, undoubtedly, is finding a market at from 10 to 11½ cents.

In the Canadian provinces we find amber quoted at 14 cents and white at 17 cents. However, recent prices on packages do not indicate that this price can be maintained for long. It is a question, in fact, whether or not it is being maintained just now except through the efforts of the cooperatives.

### Condition of Bees

Apparently beekeepers tried to put their bees into winter quarters last fall with ample stores of honey as the only difficulty with bees reported comes particularly from the central western and plains areas where there has been an extremely severe winter and in many cases ice storms which may have closed bottom entrances and brought about suffocation. On the whole, bees are in fairly good condition, and in particularly good condition in the eastern and southern sections where there has been a comparatively open winter. The question now is whether there will be sufficient stores in these areas to sustain the bees until new flora comes on and whether or not the

long period without flight in the western sections is going to cause considerable losses. Reports, of course are too early now, but we would anticipate bees in about 75 per cent as good condition as a year ago with the possibility of their coming out even better. Heavy snows in the extreme western areas have buried the bees under mountainous drifts but probably with no ill effects.

### Moisture

Moisture conditions are excellent throughout the entire country. Heavy rains have fallen throughout the southern areas and ample snow in the plains and central states with perhaps a shortage of snow in eastern areas made up, however, by ample rains. The whole South has been well wetted down and conditions throughout the entire area are more than 100 per cent as far as moisture is concerned, except perhaps southern California which still reports somewhat dry conditions.

### Honey Plants

We believe we can safely say that honey plants are in excellent condition throughout all southern and southeastern areas, in fact much ahead of time, with a question in the minds of the beekeepers as to whether later freezes may not cause great injury on account of the advance condition of the plants. Such damage has already occurred in Texas, Oklahoma, and Arkansas, but of no great consequence in the major producing plants.

Throughout the eastern area, honey plants look good. They are fairly good in the central western areas except that the ice and sleet conditions of course have hindered transpiration and there is possibility that some of the legumes may suffer as a consequence. As we approach the Missouri River and the plains states, more and more reports come in of damage by grasshoppers and dry conditions last fall which hurt the plants materially, but there is some indication that the honey plants are probably more abundant in agriculture than they were a year or two years ago. Canadian reports are to the effect that there has been much weevil damage to sweet clover in the Red River Valley but otherwise honey plant conditions are probably 100 per cent.

**HONEY WANTED** — Cars and less than cars  
TOP PRICES

**C. W. AEPPLER CO., Oconomowoc, Wis.**

# Classified Advertisements

## BEES AND QUEENS

**ITALIAN** Queens \$1.20; 2-lb. packages \$4.00; 3-lb. packages \$5.00. Wm. Claude Moore, Rt. 2, Box 694, Gridley, Calif.

**CAUCASIAN BEES** and **QUEENS**—2-lb. and queen, \$4.50; 3-lb. and queen, \$5.50. Select untested queens—1 to 25, \$1.25; 25 to \$1.20; 50 up, \$1.15. Satisfaction guaranteed. Health certificate with every order. Black River Apiaries, Elliott Curtis, Mgr., Rt. 1, Currie, N. C.

**GOLDEN, GOLDEN**—Italian bees and queens, of finest quality. 2-lb. and queen, \$4.50; 3-lb. with queen, \$5.50; up to 25 packages. Select untested queens, 1 to 25, \$1.25 each; 25 to 50, \$1.20; 50 up, \$1.15. Tested queens \$2.50 each. Larger package orders, write for prices. All bees shipped in new cages. Carolina Bee Farm, W. O. Curtis, Mgr., Graham, N. C.

**TOP QUALITY ITALIAN** package bees and queens. Three pound package of bees with queen, \$5.00. Queens, \$1.50. Brose & Stevens Apiaries, P. O. Box 36, Felton, California.

**BRIGHT YELLOW GOLDEN** Italian package bees and queens. They are real honey getters and gentle to work with. 2-lb. package with queen, \$4.50; 3-lb. package with queen, \$5.50. Untested queens, \$1.25; tested, \$2.00. Guilford Apiaries, 4300A Burlington Rd., Greensboro, N.C.

200 4-frame nuclei, \$5.50 each, transferred into your hives here. Or \$6.00 each, two nuclei in 10-frame body. Delivery about April 15th. E. E. Salge, 902 Kansas Ave., Weslaco, Texas.

**FOR SALE**—Three pound package certified Italian bees with queens, \$4.50 each, from April 20th to June 1st. Todd Apiaries Colquitt, Georgia.

**PACKAGE BEES AND QUEENS**. Three pound packages of bees with untested Italian queen, \$4.25. Liberal discount on large orders. Untested Italian queens, 75c. Remember you cannot buy a better untested Italian queen anywhere at any price. Winfield Gear Apiaries, Tehama, California.

**IMPROVED DARK ITALIAN** queens, \$1.25 from a strain that produced 600 pounds of honey per colony. Two pound package bees with queen, \$3.75; three pound with queen, \$4.75. Henry Loehr, Caldwell, Texas.

**ITALIAN QUEENS** from good stock reared right 10% books order, 90c. Write. Air Mail. Hubert Martin, Box 401, Pharr, Texas.

**TOP SECRET!** In stock improvement going on in our plant. Prospects good. In the meantime get on our customer list, and get first chance at these new CAUCASIAN QUEENS. Queens now, \$1.35 each. Substantial discount on large orders. Mark L. St. John, Ripon, Calif.

**BOOKING ORDERS** for package bees and queens. Breeding stock high honey producers. Queens \$1.25 each. Packages 1-24, 2 pounds with queen, \$4.25; 3 pounds with queen, \$5.30. 25-up, \$4.00 and \$5.00. 10% cash with order, balance before shipping. 2% discount if payment in full 30 days before shipment. Greater discounts on large orders. Martz, Rt. 2, Box 826, Vacaville, California.

**BOOKING PACKAGE BEES** with Caucasian or Italian queens. Also queens. Prices upon request. Miller & Evans, Three Rivers, Texas.

**CAUCASIAN PKG. BEES** and **QUEENS**. 2-lb. packages \$4.00 3-lb. packages \$5.00. Queens, untested, \$1.00. Lewis and Tillery Bee Co., Rt. No. 1, Box 280, Greenville, Alabama.

**HIGHEST QUALITY** dark Italian queens, 1 to 100, \$1.25 each. Air mail postpaid. Established colonies \$10 each, at our apary. Atherton Apiaries, Kenedy, Texas.

**JOE'S ITALIAN BEES** and **QUEENS** for shipment, after April 20. 3-lbs. with queen, \$4.50; 4-lbs. with queen, \$5.25. Live delivery and health certificate guaranteed. Book order without deposit. Joy Roy Aparies, Hessmer, La.

**ITALIAN QUEENS** \$1.00 each. Two pound pkgs., \$3.50; 3-lb. pkgs., \$4.50. Every queen guaranteed and shipped Air Mail. Walter D. Leverette, Box 364, Fort Pierce, Florida.

**CARNIOLAN QUEEN BEES FOR 1949** spring delivery. Ephardt Honey Farms, Batchelor, Louisiana.

**BREWER'S LINE-BRED CAUCASIAN QUEENS**—Now booking orders for April 1st. Prices, 1-99, \$1.15; 100-up, \$1.00. Member of A.B.B.A. Brewer Brothers Aparies, 3616 Caucasian Circle, Tampa 9, Florida.

**GREEN'S PROFIT PRODUCING QUEENS** won't fail you. They are backed by 22 years of breeding better queens. Start shipping about March 15th. Price 90c each. D. P. Green, Rt. 2, Deland, Florida.

**BRIGHT YELLOW** and three band queens. Graydon Bros., Rt. 2, Greenville, Ala.

**CAUCASIAN, CARNIOLAN** Package bees and queens, 1949. 2-lb. pkg., \$4.00; 3-lb. pkg., \$5.00. Untested queens, \$1.00 each. Tillery Bros., Greenville, Alabama.

**THREE-BANDED ITALIAN** bees and queens for 1949. Queens, \$1.00 each. 2-lb. pkgs. with queen, \$3.50; and 3-lb. pkgs. with queen, \$4.50. George O'Neill and Sons, Haines City, Florida.

I HAVE PLENTY good Italian package bees at the following prices. 2-lb. pkg. with queen, \$4.30, express collect; 3-lb. \$5.25. Live arrival and satisfaction guaranteed. I give personal service, ample overweight, no drones, health certificate. For truckload lots write for prices. Your patronage appreciated. Deposit \$1.00 per pkg., balance ten days before shipping date, or you may send cash in full. S. J. Head, Crossett, Arkansas.

**BILL ATCHLEY'S** famous bees, queens and nuclei—the best honey producing stock in the U. S. Untested queens, January, February and March, \$1.50 each; April, May and June, \$1.25 each. Four-frame nuclei with queen, bees, brood and honey, \$6.00 each, 2 in hive body. Will raise you full colonies in your equipment for June 1 delivery. Cheap if order early. Wm. Atchley, 500 E. 9 Street, Upland, California.

## HONEY and BEESWAX WANTED

**WANTED**—Samples, 1/2-lb., of various American honeys. Will send in exchange similar samples of Indian honey. C. N. Shivapuri, Director Api. Hort. Dept. Alwar, India.

**WANTED**—Honey and Beeswax. State amount, kind and best price in first letter. Guy Polley, Nevada, Iowa.

**BAKERY HONEY** in 60's. Send sample and price. Charles D. Neal, 601 N. Oakland Ave., Carbondale, Illinois.

**WANTED**—Table quality clover honey. Submit price delivered our plant and sample. Schultz Honey Farms, Ripon, Wisconsin.

**WANTED**—All grades comb and extracted honey, large or small amounts. Quote price in first letter. Mall sample. King Honey Co., 326 Bales St., Kansas City, Mo.

**HONEY AND WAX WANTED**. Mail sample. Advise quantity. Bryant & Sawyer, 2425 Hunter St., Los Angeles, Calif.

**WANTED**—Honey and wax—any quantity. Send samples and prices. Alexander Company, 819 Reynolds Road, Toledo 7, Ohio.

**WANTED**—Extracted honey, white or light amber in 60's. State price in first letter. Ed. Heldt, 1004 W. Washington St., Bloomington, Illinois.

**HONEY WANTED**—All grades and varieties. Highest cash prices paid. Mail samples. State quantity. HAMILTON & COMPANY, 1360 Produce Street, Los Angeles, California.

## HONEY FOR SALE

**HONEY FOR SALE**—1050 60-lb. cans of white sweet clover honey, 10c lb. F. O. B. Bill Lindeman 211 W. Second, Trinidad, Colorado.

**CLOVER HONEY**—100 60-lb. cans best quality at 12½c. Crawford Smith, Clayville N. Y.

**FOR SALE**—Nine tons extra fine table, honey, W to ELA. A. H. Gates, Garfield, Washington.

**CLOVER and AMBER HONEY** in new sixties, also 5 pound jars. Walter J. Rink, Port Hope, Michigan.

**NEW CROP OF HONEY** shipped daily from producer in Florida. Pure orange blossom, 5-lb. pail \$2.25. Pure Florida cut comb honey. 5-lb. pail \$2.75. No. C.O.D. orders; all shipments prepaid. E. R. Raley, Box 1610, Daytona Beach, Florida.

**CLOVER HONEY**, No. 1, white extracted, 16c per lb. in 60's. Lose Brothers, 206 E. Jefferson, Louisville, Kentucky.

**CLOVER HONEY** in new 60-lb cans, 12c. Order from ad. Ohmert Bee Farms, Dubuque, Iowa.

## FOR SALE

**FOR SALE**—New 150 colonies of bees and equipment, disease free. H. L. Hancock, Rt. 1, Box 601, Fort Pierce, Florida.

140—No. 2½ cartons for 24 cans, 450 No. 5 cartons for 12 cans, 1,000 No. 10 cartons for 8 cans. Entire lot at 11c each. 5,000 Root sections 4¼x1½, plain, split 3 sides. \$9.00 per 500. F. O. B. Fort Shaw, Montana, L. E. Baldwin.

FEW THOUSAND new KD standard size frames, white pine, going cheap. Harold McDaniel, Polson, Montana.

**FOR SALE**—60 acres good bee location, 2½ miles each way and 125 colonies. Purviance Gardens, Rapelje Star Route, Billings, Montana.

**FOR SALE**—600 colonies of bees, 3,000 supers, extracting equipment with new lift truck. A real outfit. Write for complete information. L. A. Weaver, 2232 S. Glenstone, Springfield, Missouri.

**FOR SALE**—The beekeeping equipment of the late Dr. Lloyd R. Watson. In excellent condition and sufficient for approximately 100 two super hives. Equipment free from disease. Write to Huber S. Watson, Alfred, New York, or come by week-end appointment only for inspection.

**FOR SALE OR TRADE** for bees and supplies. A Bean high pressure power sprayer, 50 gal. capacity almost new. Ray Johnson, Princeville, Illinois.

100 NUCLEI, complete hives. Bargain prices. Write for information. Lewis Lawrence, Dazey, N. Dak.

**STATE INSPECTED** 10-frame, painted, fine condition, about 350 standard, 50 shallow supers, 60 inner, 100 covers, 100 bottom boards. \$250.00. Adolph Moesch, Bonduel, Wisconsin.

700 2-story 10-frame colonies, together with 1,400 extra bodies with comb. No disease; equipment in excellent condition. Buyer may rent present locations. E. Schlemmer, Edgar, Montana.

**FOR SALE**—Nine Modified Dadant hives with combs, 35 supers, extractor. Geo. N. Light, 1300 So. 2nd, Fairfield, Iowa.

(Please turn to page 158)



## MARCH . . . MARCH

As usual, we are offering package bees and queens during March. We have some good April and May dates open. Use the best for best results.

**Bessonot Bee Company**  
DONALDSONVILLE, LOUISIANA

Quantity	Queens	Pkgs.	Pkgs.
1-99	\$1.30	\$4.25	\$5.30
100-up	1.20	4.00	5.00

## Italian Package Bees and Queens

FOR 1949

Quantity	1-23	24-98	99 and over
2-lb. package with queen	\$3.85	\$3.70	\$3.50
3-lb. package with queen	4.85	4.70	4.50
Queens only	1.25	1.20	1.15

For queenless packages deduct the price of queen.  
Packages are shipped express collect. Queens postpaid.

Terms: \$1.00 per package when order is booked, the remainder at least 10 days prior to shipping. Cancellations are in order at any time prior to actual shipping with full refunds made promptly.



## GIRARDEAU APIARIES

(Successors to M. Pettit)

TIFTON, GEORGIA



For more information write

**THE NEISES CO.**  
Box 249, Marshfield, Wis.



BETTER HONEY  
WITH LESS WORK

## CAUCASIAN Package Bees & Queens

D. T. WINSLETT

1015 Sonoma Ave., No. Sacramento, California

## Italian Bees and Queens



WRITE FOR PRICES  
**WICHT APIARIES**  
406 Miller St., Hattiesburg, Miss.

Every mail brings in more and more orders for "Silverhide" Ready-mixed Aluminum Paint from beekeepers, located all over the U.S.A. They have found that it really keeps their hives from 10 to 15 degrees cooler in the summer and 10 to 15 degrees warmer in the winter. Write for our circular and prices.

**TUNG OIL PAINT MFG. CO., Inc.**  
BOX 83 ORANGEBURGH, N. Y.

## THRIFTY BEES

BOOKING ORDERS FOR 1949

Combless packages and queens. Three-banded ITALIANS only. REMEMBER—THRIFTY bees are guaranteed to please.

**W. J. Forehand & Sons**  
Fort Deposit, Alabama  
Breeders Since 1892

## Dovetailing Machine

FOR MAKING BEE HIVES AND SUPERS. NOW A SIZE FOR EVERY BEEKEEPER'S SHOP.

DETAILS ON REQUEST.

## Carl E. Johnson Co.

1557 GREGORY AVENUE  
LINCOLN PARK 25, MICHIGAN

## LITTLE & MOORE APIARIES ORIGINALLY LITTLE'S APIARIES

## The JOHN M. DAVIS STRAIN Italian Queens

Guaranteed to please or money refunded.  
April 15th to June 1st, 1 to 10, \$1.25 each  
June 1st to November 1st, \$1.00 each, any number.

**LITTLE & MOORE APIARIES**  
SHELBYVILLE, TENNESSEE  
Where Quality Reigns

## PACKAGE BEES & QUEENS

### BRIGHT 3-BANDED ITALIANS

Let us book your order now. We do our utmost to ship the day you specify. Safe arrival, satisfaction guaranteed, disease free. All package bees F.O.B. express. 2-lb. pkg. with queen \$4.00; 3-lb. pkg. with queen \$5.00; Untested queens \$1.00; Tested queens \$1.50.

**RUPERT OLIVE RAMER, ALABAMA**



# STOVER'S BEES

MAKE 1949 A SUCCESSFUL YEAR BY STARTING THE  
SEASON RIGHT WITH STOVER BEES  
(You Must Be Satisfied)

## ITALIANS OR CAUCASIANS

### PRICES

Lots of	Queens	2-lb.	3-lb.	4-lb.	5-lb.
1-24	\$1.40	\$4.50	\$5.60	\$6.70	\$7.80
25-99	1.30	4.25	5.30	6.35	7.40
100-up	1.20	4.00	5.00	6.00	7.00

Queens Air Mailed and/or Clipped at No Extra Cost.

Tested Queens Twice the Price of Untested.

For Queenless Package Deduct Price of Queen

Book Your Order Now—and get the shipping date that you want. No deposit required.  
no obligation on your part.

**The Stover Apiaries : : Mayhew, Miss.**



### CHAMPION APIARIES

Successor in part to

Jasper Knight & Sons

Three-Banded Leather Colored Italian  
Bees—The Best Honey Gatherers

### QUEENS

### PACKAGE BEES

Lots of	Queens	Packages including queens			
		2-lb.	3-lb.	4-lb.	5-lb.
1-24	\$1.40	\$4.50	\$5.60	\$6.70	\$7.80
25-99	1.30	4.25	5.30	6.35	7.40
100 up	1.20	4.00	5.00	6.00	7.00

For queenless packages deduct price of queen.

No extra charge for queens via AIRMAIL or  
CLIPPING

SAFE ARRIVAL AND SATISFACTION  
GUARANTEED.

**S. M. CHAMPION**  
**HAYNEVILLE, ALABAMA**

### BE SAFE

By buying full weight packages of young  
THREE-BANDED ITALIAN BEES. As  
thrifty as any and a pleasure to work with.  
Health Certificate with each  
shipment.

We guarantee satisfaction and live delivery,  
also delivered on date you want them.

Queens are select, untested, reared by us,  
and shipped caged with bees.

### PRICES

	Queens	2-lb. pkg.	3-lb. pkg.	with queen with queen
1 to 24	\$1.15	\$4.00	\$4.00	\$5.00
25 to 49	1.05	3.75	3.75	4.75
50 to 99	1.00	3.50	3.50	4.50
100 up	.90	3.25	3.25	4.25

### HOMAN BROS.

Rt. 2

Shannon, Mississippi

# BEES AND QUEENS

*Italian, Caucasian and Resistant*

Over 30 years a shipper.

Send for FREE CIRCULARS

## Blue Bonnet Apiaries

Rt. 1, Box 23

WESLACO, TEXAS

### YELLOW ITALIAN BEES AND QUEENS

We are now booking orders for package bees and queens. We will be ready to start shipping April 1st. We guarantee you live delivery; full weight packages of young bees; each package of bees will be headed by a young queen; a health certificate with each order, and above all we guarantee you satisfaction. We require a 10% deposit to book your order, balance 10 days before shipping date. OUR PRICES ARE:

	2-lbs.	3-lbs.	4-lbs.	5-lbs.	Queens	After May 1st
1- 9	\$3.80 each	\$4.80 each	\$5.80 each	\$6.80 each	\$1.00 each	
10-24	3.70 each	4.70 each	5.70 each	6.70 each	.90 each	
25-49	3.60 each	4.60 each	5.60 each	6.60 each	.85 each	
50-up	3.50 each	4.50 each	5.50 each	6.50 each	.80 each	

FOR QUEENS SHIPPED AIR MAIL ADD 5 CENTS TO PRICE OF QUEENS

OSCAR ARNOUVILLE

Box 35, Hamburg, Louisiana

## Electric Uncapping Knife



This knife heats in 15 seconds and operates with a steady heat regulated by an adjustable thermostat in the handle. No control boxes. New design in plastic handle.

110-115 V. AC only.

Cotton Cord \$13.50 while they last.  
6-ft. rubber cord \$15.00.

MACY ELECTRIC KNIFE COMPANY

1239 S. LORENA ST.

LOS ANGELES 23, CALIFORNIA



### Three-Banded Italian Bees and Queens

We can supply you with young bees, and purely mated queens for early April and May deliveries. Packages with queens.

	Queens	2-lb.	3-lb.	4-lb.
1-100	\$1.20	\$4.00	\$5.00	\$6.00
100-up	1.00	3.75	4.75	5.75

Queenless package deduct \$1.00. Book your orders now. No deposit required.  
Fast service. Live delivery guaranteed.

LUCEDALE APIARIES

Lucedale, Mississippi

### Look what a bargain, 3-Banded Italian Pkg. Bees & Queens

AT SUCH A LOW COST. Why not book your order now. Full weight. A health certificate and live arrival guaranteed. Prices through May 10th.

FARRIS HOMAN, Shannon, Miss.

2-lb. pkg. with queen	\$3.50
3-lb. pkg. with queen	4.60
4-lb. pkg. with queen	5.80
Queens, 1 to 100	1.00

Queens 100 up .90

20% discount on all orders booked for shipment after May 10th.

### Italian Package Bees

Top quality northern California bees and queens at reduced prices. Some choice dates still available.

W. E. CLOUD  
P. O. Box 84  
Keno, Oregon

### OF COURSE!

WE ARE MEMBERS OF:  
Alabama Beekeepers Association  
American Bee Breeders Association  
AND SUPPORT  
American Honey Institute  
(See our advertisement on page 114  
of this magazine.)

SOUTHERN APIARIES  
AND  
SUPPLIES COMPANY  
CHATOM, ALABAMA

## THREE-PLY FOUNDATION

Non-sagging

Non-stretching

Withstands Hot  
Weather

More worker cells

Less drone cells

For efficient, profitable  
combs use THREE-PLY  
Order now.

Write for new price list.

• • •

The A. I. Root Company  
OF IOWA  
COUNCIL BLUFFS, IOWA

### American Rabbit Journal Shows the Way to Success

Gives the latest news and views of the rabbit world—an illustrated monthly magazine of general and educational features. 1 year, \$1.00; 3 years, \$2.00; sample 15¢.

American Rabbit Journal  
DEPT. S. WARRENTON, MISSOURI

### High Quality ITALIAN BEES & QUEENS

2-lb. package with queen	4.00
3-lb. package with queen	5.00
4-lb. package with queen	6.00
5-lb. package with queen	7.00
Extra queens	1.20

Write for discount price on large orders. 10% books your order, balance due 10 days before shipping date. Health certificate and live delivery guaranteed. For high quality, prompt service and satisfaction, TRY ME.

CARLUS T. HARPER  
NEW BROCKTON, ALABAMA

American Bee Journal

## EARLY

PACKAGE BEES AND QUEENS  
For 1949

2-lb. pkg. with queen \$4.00  
3-lb. pkg. with queen 5.00  
Italians only.

J. E. Wing & Sons  
Knights Landing, California

## IT'S A GOOD IDEA

This is the time to gather up all your old comb and cappings and have them rendered into beeswax before the wax moths consume any part of it. We charge only 2c lb. for rendering when your old comb and cappings weigh 100 lbs. or more (net), 3c on smaller shipments. We pay top price for wax.

We are always buying honey. Send SAMPLE, state how much you have and quote your best price. We remit promptly.

Send for our Money Saving Price List on bee supplies.

THE FRED. W. MUTH Co.

229 Walnut Street  
CINCINNATI 2, OHIO

### Italian Package Bees and Queens

Live delivery and health certificate guaranteed. Prices: 20% with order, balance 10 days before shipping date. 2-lb. pkg. with queen \$3.25; 3-lb. pkg. with queen \$4.25; 4-lb. pkg. with queen \$5.25.

DAIGREPONT APIARIES  
HESSMER, LOUISIANA

**ROOT BEE SUPPLIES**  
Comb and Cut Comb Packages  
Honey Containers in all sizes.  
Prompt Service.

Michigan Bee & Farm Supply  
BOX 7 LANSING 1, MICHIGAN  
Successor to M. J. Beck Co.

### GLEANINGS IN BEE CULTURE

FEATURE ARTICLES—NEWS ITEMS

MONTHLY TALKS TO BEEKEEPERS

Subscription Rate  
1 year, \$2.00; 2 years, \$3.00; 3 years, \$4.00  
in United States and Canada.

THE A. I. ROOT CO.  
MEDINA, OHIO

Renew Your Subscription

March, 1949

## SPEARS' PACKAGE BEES AND QUEENS For 1949

### QUALITY BRED ITALIANS

Carefully selected and bred from best stock available in Louisiana, which insures hardiness, vigor and prolificness. Our bees are very quiet; are light yellow in color and are excellent workers, fresh from Southern hives used only to shake bees, assuring you of only young, vigorous workers. Insure success in '49 with bees from Spears' Apiaries.

Place your orders early to get your shipping date when wanted. We solicit and appreciate all orders, whether for a few packages or several hundred. Live delivery is guaranteed, satisfaction assured and a health certificate accompanies each order.

Insure delivery on the date desired by sending us your orders now. All correspondence will be treated with equal courtesy and promptness.

Quantity	2-lb. Pkg.	3-lb. Pkg.	4-lb. Pkg.	QUEENS
1-24	\$3.95	\$4.95	\$6.10	
25-up	3.75	4.80	5.90	\$1.15

Write for discount on large orders.

SPEARS' APIARIES, Hamburg, Louisiana

### Honeyflow Bee Feeder

\$2.50 Everywhere in  
United States.

Look for it at your bee  
supply dealer.

If he doesn't have it  
write

W. O. GOEBEL  
KNOXVILLE, IOWA



### The Heart of Comb Honey Is Foundation



The biting quality of the honey, that delicate center taste is foundation. It must become a part of the honey, so tender, a touch of the tongue will crumble it; yet be so strong that bees work it out quickly and easily. Dadant's Surplus Foundation, fragrant and pure, thin and sweet, blends naturally with your finest comb honey, that your market grades are better and sales are quicker.

DADANT & SONS, Inc.  
Hamilton, Illinois

### LIGHT COLORED ITALIAN BEES AND QUEENS

	2-lb.	3-lb.	4-lb.	5-lb.
Queens	Bees	Bees	Bees	Bees
1 to 24	\$1.25	\$4.00	\$5.10	\$6.20
25 to 99	1.15	3.75	4.80	5.85
100 up	1.05	3.50	4.50	5.50
				6.50

For queenless packages deduct price of queen.  
Prompt service and live delivery guaranteed.

B. A. ANDERSON & CO.

Opp, Alabama

# PACKAGE BEES with Queens

MAY WE RESERVE THE DATE YOU DESIRE FOR YOUR SHIPMENT?

## ITALIANS



	1-24	25-49	50-99	100-up
2-lb. package with queens	\$4.50	\$4.25	\$4.00	\$3.75
3-lb package with queens	5.25	5.00	4.75	4.50
4-lb. package with queens	6.00	5.75	5.50	5.25
5-lb. package with queens	6.75	6.50	6.25	6.00

## SUNNY SOUTH APIARIES

MARKSVILLE, LA.

I. CLARK, Prop.

## RICH'S Leather Italian and Caucasian Bees and Queens

LIVE DELIVERY GUARANTEED ON EVERY SHIPMENT

	Queens	2-Lb.	3-Lb.	4-Lb.
1-24	\$1.30	\$4.25	\$5.30	\$6.35
25-99	1.20	4.00	5.00	6.00
100-up	1.10	3.75	4.70	5.65

Please include 10% deposit with order.

THE RICH HONEY FARMS

Jeanerette, La.

## 1903 Forehand's Package Bees and Queens 1949

We are now booking orders for April delivery. So send us your needs and we will send you the bees.

● WRITE	QUEENS	\$1.20	
● WIRE	2-lb. packages with queen	\$4.00	
● PHONE	3-lb. packages with queen	5.00	WRITE US FOR YOUR DEALERS' PRICES
	For larger packages add per lb.	1.00	
	For queenless packages deduct price of queen.		

HUBER FOREHAND 45 Years Among the Bees

Satsuma, Alabama

## GOOCH'S BEST ITALIAN PACKAGES AND QUEENS

To prove to you that our bees and queens live up to the excellent reputation they have built for themselves, let us mail you copies of unsolicited letters praising their performance. Whether you place an order or not, remember, we always enjoy hearing from you.

LOTS 1-10	
2-lb. package with queen	\$4.40
3-lb. package with queen	5.50
QUEENS (each)	1.35

We guarantee to refund to you 10¢ per package per day if shipment is not made within five days of date agreed upon.  
SATISFACTION GUARANTEED

JESSE E. GOOCH & SONS

Route 3, Pine Bluff, Arkansas

## ITALIAN BEES AND QUEENS

We don't know where you can get high price for good honey. But we do know you can get good package bees and queens at a low price here.

YOUNG LAYING QUEEN, EACH 75 CENTS

GULF COAST BEE CO.

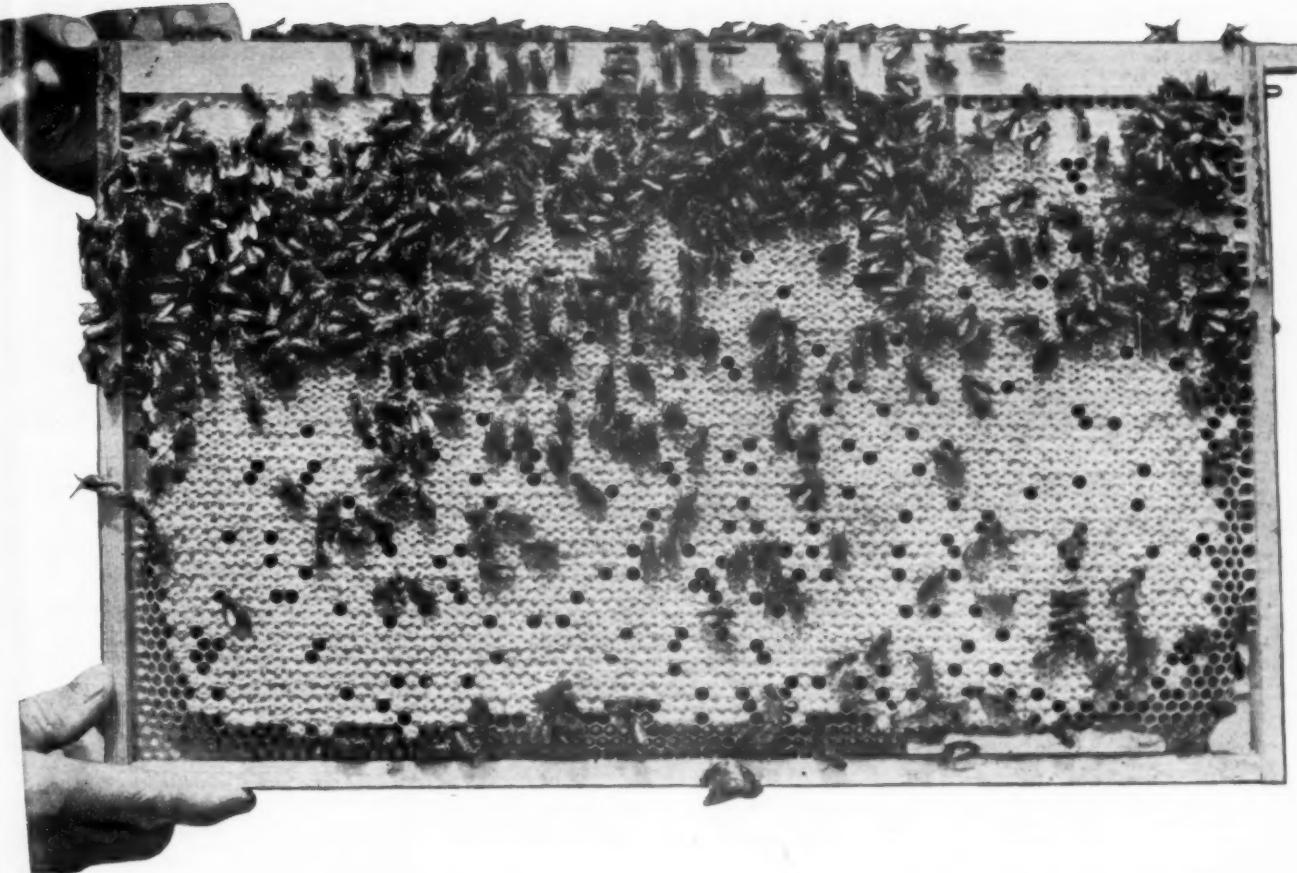
Schriever, Louisiana

KEEP BEES? THEN YOU WANT  
THE BEEKEEPERS MAGAZINE

\$2.00 a Year

Sample Copy mailed upon request

E. ELMER CARROLL, Publisher  
3110 Piper Road, Lansing 15-B, Mich.



## How About Your Combs?

Go into any good sized apiary where **Dadant's Crimp-Wired Foundation** is used and bend over the hives with the owner. He will show you comb after comb, just like the one shown here. Hive after hive with never a miss. He knows he has good combs. They are solid combs, built out fully. Combs that cannot sag.. Queens can lay from side to side and from top to bottom or honey can be filled into the very corners. Compare these combs with what you see when you open your own hives.

• • •

Did you ever note how much comb there is the queen can't use? How much it reduces the number of bees? **Dadant's Crimp-Wired Foundation** gives more brood room, there are more eggs laid, more bees out, more powerful colonies.

**Wired Foundation Makes the Small Hive Big and the Big Hive Bigger.**  
When you plan your foundation buying, consider what this means to you.

**Dadant & Sons, Inc.      Hamilton, Illinois**

---

**Beeswax Wanted: We buy at all times. Drop us a card stating quantity you have to offer**

## FOR SALE (Continued)

**FOR SALE** for best offer—30 beehives complete with supers for comb and extracted honey. Clean, free from disease. 1 2-frame Root revolving extractor, good as new. A. W. Brown, 49 E. 148th St., Harvey, Ill.

**OZARKS**, 140 acres 4½ miles from Salem, Missouri on county road, good 2 room house, large barn, poultry buildings, new drilled well cistern, all fenced. Write owner J. Wolosevich, 6315 S. Damen Ave., Chicago 36, Illinois.

**80 COLONIES** in metal covered hives, extra equipment. Described in December issue. State offer. Raymond Love, Rt. 2, Bourbons, Illinois.

**170 COLONIES** in two stories. Equipment for 250. Complete extracting equipment. Lloyd Goodyear, Boyden, Iowa.

**FOR SALE**—10-frame hive bodies, bottoms, covers, extractor, etc. Write for list and prices. Edw. Rydz, Cedarburg, Wisconsin.

**FOR SALE**—Several hundred of each 8-frame used hive bodies, shallow extracting supers empty and all-wire queen excluders, disease free. Kalona Honey Co., Kalona, Iowa.

**SALE OR TRADE** for honey—200 10-frame supers, tops, bottoms, excluders. Tinari's Aplaries, Bethayres, Pa.

8 Lewis bodies, frames and foundation; 6 Lewis bodies and frames. All new, nailed 10 frame. 25 lbs. Dadant wired foundation. All for \$65.00. O. C. Nell, Neosho, Wis.

**FOR SALE** in N. W. Iowa—1,000 colonies of bees, double brood nest and plenty of feed. Winter packed. Standard 10-frame equipment, extra good. Price per colony with two supers of comb, \$15.00. Also may be had—large honey house 24 ft. x 65 ft., with lean-to for boiler room and wax rendering. Latest extracting equipment with Neises clarifier and filter, Evans hot water system. 1947 2-ton Chevrolet truck; 1948 ½-ton stake Ford. Both have low mileage and are like new. Poor health reason for selling. Byron Aldrich, Moneta, Iowa.

400 COLONY bee business, A-1 equipment, modern honey house, lots extra equipment. All or part. Write for details. Louis Farrington, Henderson, Iowa.

500 2-STORY COLONIES 10-frame, inspected. Equipment for 600. Location will go with bees. Modern home and honey house can be purchased with bees. Write for prices and details. J. R. Finstad, Campbell, Minn.

**FOR SALE** 35 colonies, supers and equipment. All ten frames for extracting. Inspection invited. Must be sold. You name the price. B. K. Thomen, Gardner, Kansas.

**FOR SALE** 150 colonies of bees. All ten-frame equipment and three stories high. 360 ten-frame extra stories and 300 ten-frame supers new last year. One A. I. Root 45-frame honey extractor one capping knife. 150 new 60 lb. cans, never been used. Three 80-gallon settling tanks. One 1941 Chevy ½ ton truck tractor equipped with two speed axle and three speed brownie and 34 ft. dual axle trailer with good rubber and good condition. Have to see all this to appreciate. Price \$6,000.00. These bees passed Colorado and Texas bee inspections last year. Call or write H. F. Holley, Roanoke, Texas.

**COMPLETE** commercial beekeeping outfit for sale including 600 colonies, trucks, house, shop and other buildings located on 60 acre farm near Ithaca. Everything modern and in excellent condition. Bees and locations may be purchased separately if desired. William Coggshall, South Lansing, New York.

**TWENTY COLONIES**. Equipment like new for fifty. Complete honey house equipment. Paul La Plant, Anoka, Minnesota.

**BEE POLLINATION SERVICE** earning \$15 per colony with 200 new Lewis hives. Lack of labor forces sale. Reasonable. Can expand to 1,000 colonies easily. Write: Howard Rasmussen, Tomah, Wisconsin.

**FOR SALE**—New Loebe geared inch honey pump, never used. First \$28.00 takes it. H. A. Schmitt, Mandan, North Dakota.

400 2-story 10-fr. hives bees and equipment, with or without locations. 200 shallow supers 5¾" deep, with inside fixtures for 4¼x4¼x1¾" comb sections. 2 houses, 2½ acres land, pressure water system. All or part. Located at Blackfoot, Idaho. Cozy Nook Honey Co., 4621 W. 167 St., Lawndale, California.

**OFFERING** 3,000 colonies of a 5,000 colony outfit in northwestern Minnesota on very favorable terms to a purchaser. Packages and locations furnished if desired. Hopkins Honey Farms, Maringouin, La.

**FOR SALE**—1,000 colonies bees \$10.00 each. Truck and locations included. Liberal terms. Eugene Walker, Gridley, Calif.

**SURPLUS**—400 colonies in Florida, full of bees and honey. All or part. Suitable for package bees or honey production. Information on request. Box 1610, care American Bee Journal.

**FOR SALE**—247 colonies of bees with equipment Clyde Cobb, Belleville, Ark.

## WANTED

**WANT TO CORRESPOND** with 5-colony beekeeper in U. S. A. W. Kingman, 94 Bristol Old Rd., Radstock, Bath, England.

**WANTED** to buy from 250 to 500 colonies bees, western or far western states preferred. Must be in locality not overstocked, and where not necessary to move. Desire quick action, full details in reply. J. Earl Hanks, 2865 Dahlia St. Denver, Colo.

**WANTED** Used Brand cappings melter in good condition. Orie Borgen, Lanesboro, Minn.

## POSITIONS AND HELP WANTED

**WANTED**—Experienced beekeeper to operate 300 colonies. Permanent position. Begin now. Harry Robson, Marion, Iowa.

**CATHOLIC MAN** wants job with honey producer or beekeeper in Wisconsin or Illinois. Honest and reliable. Thomas Schwab, Rt. 2, Verndale, Minnesota.

**WANTED**—Experienced truck driver and bee operator for honey production. Permanent position. Single man preferred. Box 25, care American Bee Journal.

**EXPERIENCED HOUSEKEEPER** wants work for room, board, small salary, and instruction in bee business. References exchanged. Box O, American Bee Journal.

**WANTED**—Two men to work in our aparies. Opportunity for advancement. Schultz Honey Farms, Ripon, Wisconsin.

**APIARY INSPECTORS**. Seasonal work from April to October—\$7.59 a day plus expenses. Automobile required. Inquire Michigan Civil Service Commission, 310 North Grand Ave., Lansing, Michigan.

**WANTED**—Two helpers with or without experience. Authorized to give On the Job Training. Give references. Real opportunity to make good. Address Box 16, care American Bee Journal.

**HELP WANTED**—Experienced man to operate 500 to 1000 colonies. Choice territory, 1st class equipment. Permanent position. Write Box MS, care American Bee Journal.

## SUPPLIES

**OUR FREE BEE SUPPLY CATALOGUE**. Lists double boilers, special motors, blowers, etc., not listed by others. We manufacture bee hives, wired and plain foundation, tanks and extractors, etc. Quick delivery from stock. Walter Kelley Co., Paducah, Kentucky.

**CLEAN UP AFB** with sulfa. 25 tablets 50c; 50, \$1.00; 100, \$1.50; 1,000, \$6.00. Free Circular, quick shipment. WALTER T. KELLEY CO., PADUCAH, KENTUCKY.

**FOR SALE**—25,000 mill run Lewis sections 3¾x5x1¾ scalloped 4 sides ½ inch at \$14.00 per thousand, f.o.b. Hamilton, Ill. Dadant & Sons, Hamilton, Illinois.

**WRITE FOR CATALOGUE**. Quality bee supplies at factory prices. Prompt shipment. Satisfaction guaranteed. The Hubbard Aplaries. Manufacturers of Beekeepers' Supplies, Onsted, Michigan.

**HIVE BODIES**, covers and bottom boards bee shipping cages and nuclei hives. All supplies new and knocked down. Price list furnished on request. A & B Supply Company, Coffee Springs, Alabama.

**PURE POLLEN**—Collected from disease free colonies. Pound \$1.25; 5 pounds \$5.50; 10 pounds \$10.00. Postpaid. Feeding instructions enclosed. University of Arkansas, Fruit and Truck Branch Experiment Station, Hope, Arkansas.

**MEDIUM BROOD FOUNDATION** for sale at 80c per pound. Fred Peterson, Alden, Iowa.

**BEEHIVES**—Standard 10-frame beehives and parts. Price list free. Write Hackney Bros. Mfg. Co., 1304 Betty Lane, Fort Worth, Texas.

**PURE CYPRESS** 10-frame bottom boards \$1.00. Allow 10 days for delivery. C. O. Lundin, Rt. 2, Box 275, Pine Bluff, Ark.

**WINONA, MINN., AREA BEEKEEPER**. We carry a complete stock of Lewis-Dadant beeware and containers at all times. For satisfaction, order package bees from us now. Write for prices. Robb Brothers Store, 578 E. 4th St., Winona, Minnesota.

**THE ONLY COMB FOUNDATION PLANT** in the East. We sell foundation, work your wax, render combs and cappings. Twenty-nine years' experience. Robinson's Wax Works, Rt. No. 3, Auburn, N. Y.

**PLAIN COMB HONEY SECTIONS**, 4½x4¼x1½", in cartons of 500, for \$3.25. F.O.B. St. Paul, Minnesota. Midland Mercantile Co., 92 South Robert St., St. Paul 1, Minnesota.

**YOUR WAX WORKED** into quality brood foundation, 23¢ pound; 100 pounds, \$19.00. Fred Peterson, Alden, Iowa.

**BEEHIVES, FRAMES, SUPERS**. Standard lock-cornered hive bodies; strong, light frames. Satisfaction guaranteed. Price list free. Green Mountain Aplaries, Rt. No. 1, Box 200, Orchards, Washington.

**LEWIS BEE SUPPLIES** and Dadant's wired foundation. Prompt shipment from stock. Simeon B. Beiler, Intercourse, Pa.

## SEEDS AND TREES

**MAKE UNUSED LAND YIELD NECTAR**. We have seed of good honey plants for naturalizing waste areas. Very special prices on quantity of some items. Write us. Melvin Pellett, Atlantic, Iowa.

**FOR BETTER BEE PASTURE** save time. Plant fully established, deep-rooted permanent trees shrubs and perennials. Free illustrated folder listing 70, designating varieties suited for your section, the final height, and time of bloom. See ad page 51 January issue. Nicollet County Nursery, St. Peter Minn.

**BIRDSFOOT TREFOIL** (Northern Certified) \$2.75 pound. Borage \$4.50 pound. Clethra Alnifolia \$3.50 pound. Coriander \$2.50 pound. Catnip, Garden Sage, Horehound, Hollyhock, \$1.00 ounce. Maple syrup \$6.50 gallon. All leather lambskin chore gloves, \$1.50 pair. Postpaid. Robert Mead, White River Jct., Vermont.

**CLEOMES**, annual nice garden ornamentals, good honey plants, naturalize right environment. GOLDEN CLEOME seed, ounce \$1.00. ROCKY MOUNTAIN BEE PLANT, 2 ounces \$1.00 pound \$3.50. Postpaid. Melvin Pellett, Atlantic Iowa.

**FOR SOUTHERN AND WESTERN BEE PLANTS**, trees and shrubs, promptly shipped from our cellars, get free illustrated folder. For Anise-hyssop, Basswoods, Honeysuckle, and Vitex shrubs see ad page 51 January issue. Nicollet County Nursery, St. Peter, Minn.

GROW SAINFOIN, legume, forage, good honey plant. Seed pound \$1.00 postpaid; 10 pounds upwards 60c pound not prepaid. LADINO CLOVER, certified Blue Tag, \$3.00 pound postpaid. PELLETT CLOVER, see ad page 181. BIRDSFOOT TREFOIL, northeastern grown domestic Broadleaf, write us. Circular free. Melvin Pellett, Atlantic, Iowa.

RAISE YOUR OWN TREES and shrubs from seed for shade, windbreak, erosion control, etc. Write for free planting guide

### HONEY WANTED

Carloads and less than carloads. Mail sample and best prices in all grades.

C. W. AEPPLER COMPANY  
Oconomowoc, Wisconsin

and price list. Woodlot Seed Co., Norway I, Michigan.

### MISCELLANEOUS

KNOW interesting facts concerning the bees of India through the INDIAN BEE JOURNAL, published in English, by The Phupen Apiaries (Himalayas), Ramgarh, Dist. Nainital, U. P., India and obtainable from them. Subs. Rs 7/- or 10 Shillings or 2.25 Dollars per annum. Single copy 1/4/-s. 1/9 or 49 cents (international money order).

RANCH MAGAZINE—Do you find it difficult to secure information about sheep and sheep ranching methods? The SHEEP AND GOAT RAISER reaches more sheepmen with more information on range sheep than any magazine published. Subscription \$2.00. Hotel Cactus, San Angelo, Texas.

THE BEE WORLD—The leading bee journal in Great Britain and the only international bee review in existence. Specializes in the world's news in both science and

practice of apiculture. Specimen copy, post free, 12 cents, stamps. Membership of the Club including subscription to the paper 10/6. The Apis Club, The Way's End, Foxton, England.

### DAIRY GOAT

DAIRY GOAT JOURNAL—Introductory six month \$1—Columbia 2, Mo.

### HONEY LABELS

Improved designs, embodying color, balance, simplicity, and distinction. Please send for free samples & prices.

C. W. AEPPLER COMPANY  
Oconomowoc, Wisconsin

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Do you want Service ???  
 Open shipping dates—packages  
 and extra queens shipped the  
 day you want them shipped!  
 Express shipments made via  
 G. M. & O. (The Rebel Line)—fastest  
 and most direct route, from  
 Alabama to Canada!  
 Live delivery and full weight,  
 of course!  
 Alabama prices—reduced after  
 May 20th!!  
 For quality package bees and  
 extra queens—or for special  
 service—write us, now!  
 Southern Apiaries & Supplies Co.  
 Chatom, Alabama.

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A-B-J Ads Are Result Getters



# Prices Cut!

We believe lower honey prices necessitate that our customers have lower priced bees in order to stay in business therefore we are co-operating by cutting our prices to the bone.

## NEW 1949 PRICES

Queens	2-lb. pkg. with queen	3-lb. pkg. with queen
1-24	\$1.15	\$3.90
25-99	1.05	3.75
100-up	.95	3.40
		4.50

### FOUR FRAME NUCLEI

Two, four, six, eight or ten nuclei \$6.20 each  
Oven ten nuclei 6.00 each

NO ORDER TOO LARGE OR TOO SMALL  
TO BE APPRECIATED.

WE SOLICIT CANADIAN ORDERS FOR  
PACKAGES AND QUEENS

We guarantee our combless packages and nuclei to give complete satisfaction in every respect. All shipments are accompanied by a certificate of inspection and are guaranteed to be disease free. Live delivery and shipment on date booked are assured.

Our nuclei consist of four combs containing brood, honey and pollen and two lbs. of bees with a laying queen. All nuclei are shipped in lots of two or multiples of two, and are crated two nuclei in a single ten frame hive body, partitioned in the middle and screened top and bottom.

One third down books order and choice of shipping dates; balance due ten days before shipment. Orders may be cancelled any time before shipping date with refund in full.

Shipments begin April 1st and continue through May.

# Babcock Honey Company

P. O. BOX 126

COLUMBIA 5, SOUTH CAROLINA



**PACKAGE BEES  
AND  
QUEENS**

THREE-BANDED ITALIAN BEES AND QUEENS—BEST OF QUALITY.

2-lb. package and queen	\$4.50
3-lb. package and queen	5.50
Write for prices over 25 packages. Select Untested Queens	
1 to 25, \$1.25. 25 to 50, \$1.20. 50-up \$1.15	
All bees shipped in new cages and health certificate with every order.	

**Alamance Bee Company**  
Geo. E. Curtis, Mgr. Graham, N. C.

**PELLETT CLOVER**

START WITH LIVE PLANTS



Spreads rapidly from deep roots and increases from year to year. Blooms in June and July. Very attractive to bees. Root divisions may be planted in early spring. Root divisions—25, \$2.00; 100, \$5.00; 250, \$10.00; 500, \$18.00 postpaid.

**MELVIN PELLETT**  
ATLANTIC, IOWA

**HALL APIARIES**  
Italian Bees and Queens

Write for 1949 price list and quantity discount.  
Live delivery guaranteed.

P. O. Box 415 Prichard, Ala.



Fast,  
Reliable,  
Labor  
Savers

At Your Dealers

**PORTER BEE ESCAPE**  
LEWISTOWN, ILLINOIS BOX 89

**NOTICE—3-Banded Italians**  
95% baby bees, 5% teachers. Back to prewar prices. Prompt shipment. 2-lb. package \$4.00; 3-lb. package \$5.00; Extra queens \$1.25. Capacity 6,000 packages.

**DUPUIS APIARIES**  
BREAUX BRIDGE, LOUISIANA

**AUSTRALIAN BEEKEEPING NEWS**  
The Leading Bee Journal of Southern Hemisphere is the

**AUSTRALASIAN BEEKEEPER**  
Subscription 8 shillings per year. start any time. Enquire for international money order for 8 shillings (Australian) at your Post Office. Write now to The Editor P. O. Box 20, West Maitland, New South Wales, Australia

**CHOOSE LABELS WISELY—  
A-B-J LABELS GET RESULTS**

# GARON'S

## Package Bees & Queens



GARON'S Better Quality Regular Italians—and Northern-Bred All-Italian Daughters of Tested A.F.B. Resistant Stock. These two stocks are Quality Stock in all respects.

Our dependable Service brings to you full weight packages, packed in light sturdy containers with view of reducing express charges. All orders shipped on desired dates. Live delivery guaranteed.

	1-24	25-99	100-150
2-lb. pkg. with 3-Banded Regular Italian Queen	\$4.00	\$3.80	\$3.70
3-lb. pkg. with 3-Banded Regular Italian Queen	5.00	4.80	4.70
4-lb. pkg. with 3-Banded Regular Italian Queen	6.00	5.80	5.70
3-Banded Regular Italian Queens	1.25	1.20	1.10
Daughters of D. R. All-Italian hybrid queens	1.65	1.55	1.40

Write promptly for QUANTITY DISCOUNT on larger package lots than listed above and (or) for preferred shipping dates.

For packages with D. R. Queens, deduct the price of the 3-Banded Regular Italian Queen from the package and add the cost of the D. R. queen.

We guarantee live delivery and full weight packages at destination. Queens Air Mailed and/or clipped at our expense.

**Garon Bee Co.**

**Donaldsonville, La.**

## A.I. ROOT COMPANY OF CHICAGO

### Italian Package Bees and Queens for 1949

	1-24	25 or more
2-lb. package with queen	\$4.50	\$4.25
3-lb. package with queen	5.50	5.30
4-lb. package with queen	6.70	6.30
5-lb. package with queen	7.75	7.25
Queens	1.35	1.25

Tested queens \$2.00 each.

#### ORDER EARLY.

Queens postpaid. Packages by Express. F.O.B. Shipping Point. For queenless packages deduct the price of the queen.

Health certificate with each shipment. Live delivery guaranteed.

Write for prices on Caucasian and Carniolan bees. Order from Chicago; bees shipped from our southern shipper.

## A. I. ROOT COMPANY OF CHICAGO

224-230 W. HURON ST., CHICAGO, ILLINOIS, DEPT. 2S

## PROTECT YOUR INVESTMENT—

### Use Package Bees and Queens of DR STOCK

QUANTITY	QUEENS	PACKAGES WITH DR QUEENS
1 to 9	\$1.30 each	2-lbs. 3-lb. 4-lbs.
10 to 49	1.20 each	\$4.00 \$5.00 \$6.00
50 to 99	1.10 each	2.75 4.75 5.75
		3.50 4.50 5.50

For POLLINATION PURPOSES there seems to be an interest in the 4-lb. packages. CONTEST CLOSES MAY 1, 1949—SEE DETAILS IN JANUARY 1949 A.B.J.

**IOWA BEEKEEPERS' ASSOCIATION**  
STATE HOUSE, DES MOINES 19, IOWA

# York's Package Bees & Queens

## Quality Bred Italians

Bred up to a high standard of quality and not down to a price. We have the bees, equipment and experience required to handle your orders promptly and to your satisfaction. No order too large or too small and the quality is unsurpassed. It is what you get for what you pay that counts. Order now and have your bees shipped when wanted.

### PACKAGE BEES WITH YOUNG LAYING QUEEN

Quantity	1-24	25-99	100-up
2-lb. package	\$4.50 each	\$4.25 each	\$4.00 each
3-lb. package	5.60 each	5.30 each	5.00 each
4-lb. package	6.70 each	6.35 each	6.00 each
5-lb. package	7.80 each	7.40 each	7.00 each
Extra queens	1.40 each	1.30 each	1.20 each

For queenless packages, deduct price of queen. For tested queens, add \$1.00.

Only neat new cages are used for bees, certified bees from our own Apiaries, state registered and state inspected. Package bees are shipped by express, and queens, not with packages, by mail. Queens are young, bred from carefully selected breeder queens and mated to drones from selected queens. If convenient, small orders cash, larger orders \$1.00 deposit per package to insure order and balance not less than two weeks prior to shipping date.

**York Bee Company : Jesup, Ga., U.S.A.**  
(The Universal Apiaries)

### Package Bees and Queens : April and May Delivery

As honey prices go down and package bee prices remain up due to high cost of material, labor and etc., you can do something about it by purchasing bees and queens that will arrive in first class condition, build up quickly and store a good surplus. Our THREE-BANDED ITALIANS are guaranteed to be good and are backed by 25 years' experience as a shipper.



	1-24	25-99	100 or more
2-lb. with queen	\$4.50 each	\$4.25 each	\$4.00 each
3-lb. with queen	5.60 each	5.35 each	5.10 each
Select-Untested queens	1.40 each	1.30 each	1.20 each
25% with order, balance just before shipment is made.			

THE CROWVILLE APIARIES

Rt. 1, Winnsboro, Louisiana

### PACKAGE BEES-Light Colored Italian Bees

ON THE SAME OLD BASIS—QUALITY, SERVICE, SATISFACTION

Live delivery guaranteed  
on all shipments.

10% deposit books any  
order.

2-pound package with queen	\$3.75
3-pound package with queen	4.75
4-pound package with queen	5.75
Queens	1.15

Write for discount on larger orders.

**E. J. Bordelon Apiaries, Moreauville, La. : Box 33**

# YOU CAN GET "Lev-L-Drain"® BOTTOM BOARDS at regular price



That's right! "Lev-L-Drain" Bottom Boards cost no more than ordinary ones. They are termite free, weather resistant and longer lasting. Lewis' rot-proofing makes sure of that. Besides, they level your hives, cause moisture to drain, and reduce the bees' work.

For the health and comfort of your bees, use the  
"Lev-L-Drain"\*\* Bottom Board and the "I-V"\*\* Cover.

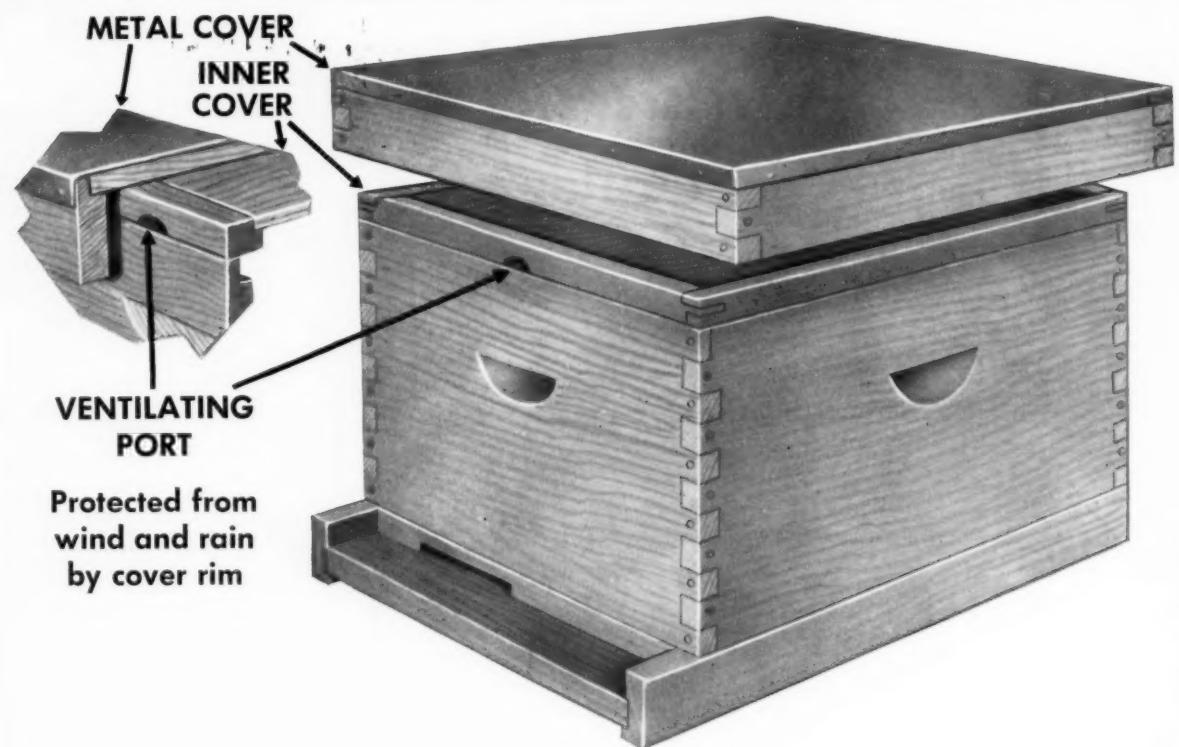
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## Ventilated Inner Cover

Good wintering in many parts of the country requires means for escape of moisture from the hive. The new Ventilating Port in the rim of the inner cover when the cover is reversed from normal position allows moisture to rise and be carried out of the ventilator opening. The latter is protected from the wind and rain by the rim of the outer cover. The ventilation may be controlled by moving the cover forward or backward as conditions require. This is an apiary tested improvement you will find only on Root's strong inner cover.

### *New Root Bee Supply Catalog*

The ventilated inner cover is one of the many new items you will find in Root's 1949 bee supply catalog. If yours has not arrived yet, see your nearest dealer for a copy or write direct to Medina.

ORDER FROM YOUR NEAREST ROOT DEALER

**Root**  
QUALITY  
BEE SUPPLIES

**THE A. I. ROOT CO.**  
MEDINA, OHIO

ESTABLISHED 1869

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